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NACCINARKKINIYAR'S CONCEPTION OF PHONOLOGY

S. V. SHANMUGAM

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Preface

With a view to collect the source materials for writing a detailed history of Tamil language, the Annamalai University was working on the project of indexing the classical works in Tamil and the important inscriptions, chronologically as far as possible, describing their languages and of studying the works of Tamil grammar and their commentaries historically for understanding their reaction to the usages changing from age to age. As a part of the last scheme, Sri S. V. Shanmugam worked on the phonological conception of Naccinarkkiniyar, a famous commentator, under me for his M.Litt. degree and his thesis had been accepted by the University. The University Grants Commission had agreed that the basic thesis should be published so as to be available for the research world.

I am glad the work is being published.

T. P. Meenakshisundaran
VICE-CHANCELLOR
MADURAI UNIVERSITY

16th April 1967

Introduction

Tolkāppiyam is the earliest work in Tamil, and the major portion of eḻuttatikāram "Chapter on Phonology" belongs to a period anterior to Sangam literature.

The present treatise attempts at a critical study of Naccinārkkiniyar's commentary on eḻuttatikāram of Tolkāppiyam. This commentary, as it stands today seems to be an extended version of Iḷampūraṇar, the first commentator of Tolkāppiyam. Naccinārkkiniyar, however, does not fail to record his disagreements with Iḷampūraṇār. This necessitates a discussion of the views of Iḷampūraṇar in addition to that of Naccinārkkiniyar. The observations of the later grammarians like Pavaṇanti, the author of Nannūl, Avinayanār etc. and modern scholars like Prof. T. P. Meenakshisundaran, Venkatarajulu Reddiar etc., will also be of immense help to understand and to evaluate the original contribution of Naccinārkkiniyar to the study of phonology.

The commentaries are useful for writing the history of Tamil language. Both the commentators have themselves observed rules and have given illustrations of new usages in addition to the meaning and exemplifications of the sutras. Some of their observations belong to the language of Tolkāppiyam and others to post-Tolkāppiyam periods and they are classified accordingly in the last chapter. The differences in the interpretation of certain sutras (S. 40, 408 etc,) are explained as due to the change in the structure of the language. However, the illustrations given for some sutras

(S. 170 and 164, and 431) cannot be taken as reflecting the anguage of Tolkāppiyam but they do actually belong to a later period.

The first three chapters, Nūṉmarapu, Moḻimarapu, and Piṟappiyal which form the nucleus of the phonology are dealt with in detail. The rest, Urupiyal, Puṇariyal, Tokaimarapu, Uyirmayaṅkiyal, Puḷḷimayaṅkiyal and Kuṟṟiyalukarappuṇariyal which deal with morphophonemics, augments etc. are also examined for better appreciation of Tolkāppiyar's treatment of Tamil phonology and general stand-point of Nacciṉārkkiṉiyar.

Instead of discussing the views of Nacciṉārkkiṉiyar under various heads arranged according to different aspects of phonology, the scheme of Tolkāppiyar is followed so as to comprehend the intricacies of the methods followed by the commentators and to realise more clearly the difficulties thereof.

This work is based upon the research treatise submitted to the Annamalai University in the year 1960 for which the author has been awarded the degree of the Master of Letters. I owe a great debt to my revered Guru, Prof. T. P. Meenakshisundaran (former Head of the Department of Linguistics, Annamalai University), Vice-Chancellor, Madurai University, who supervised my research work and I am very much thankful for his suggestions, encouragement and guidance, without which the work could not have been undertaken and completed. I am highly indebted to him for his having given a preface to this book.

The original thesis has to be slightly revised to suit the present purpose and I had the benefit of discussions with my

colleagues Thiru K. M. Prabhakara Variar, Thiru N. Kumaraswamy Raja and Thiru G. Vijayavenugopal to whom my profound thanks are due. I am grateful to Prof. M. Shanmugam Pillai, former Head of the Department of Linguistics, Annamalai University, for the keen interest he has shown in the publication of this book. I wish to thank the University Authorities and the University Grants Commission and also M/s. Azhahu Printers who executed the printing work satisfactorily.

Annamalainagar,
14th Aug., 1967.

S. V. Shanmugam

SCHEME OF TRANSLITERATION

அ	*a*	க	*k*
ஆ	*ā*	ங	*ṅ*
இ	*i*	ச	*c*
ஈ	*ī*	ஞ	*ñ*
உ	*u*	ட	*ṭ*
ஊ	*ū*	ண	*ṇ*
எ	*e*	த	*t*
ஏ	*ē*	ந	*n*
ஐ	*ai*	ப	*p*
ஒ	*o*	ம	*m*
ஓ	*ō*	ய	*y*
ஔ	*au*	ர	*r*
ஃ	ஃ	ல	*l*
		வ	*v*
		ழ	*ḻ/l̤*
		ள	*ḷ*
		ற	*ṟ/r̤*
		ன	*ṉ/n̤*

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One. THE APPROACH

1.1. The peculiar approaches in Tamil grammars other than Tolkāppiyam to the study of phonology may be first considered before one takes up Tolkāppiyar's approach for detailed study. One may, as a starting point, analyse what the commentators have to say about the various spheres of the study of phonology. The earliest commentator is Iḷampūraṇar and Naccinārkkiniyar has simply copied, as is his habit, Iḷampūraṇar's commentary on phonology. Whilst Iḷampūraṇar does not explain his statements, in detail with suitable illustrations Naccinārkkiniyar is the only author who helps us here with his explanations and illustrations.

1.2. Indian thought was fond, atleast at one stage, of analysing any study under well-defined and serially numbered aspects. One knows the flair for numbering, for instance, of the Sāṅkhya philosophy. The Jains, perhaps, had the same tendency and one wonders whether the serial numbering of the various aspects of study in phonology may not be the contribution of Jain grammarians like Avinayanār and others.

Whatever this may be, there are two different kinds of enumeration of these aspects[1]. One school of thought, it is learnt, analyses the study under eight different heads viz. (1) the number of sounds (2) their names (3) the order of these sounds (4) their quantity (5) their birth, that is, articulation (6) Sandhi or *puṇarcci* (7) their shape and (8) their characteristic features.

(1) The number is expressed in three different ways viz. (i) the summarised total (*tokai*) (ii) number of the classified categories (*vakai*). (iii) number when detailed elaborately (*viri*). For instance, the summarised total of sounds in Tamil is given as thirty three;[2] and the classified categories are the vowels numbering twelve (S. 8), consonants eighteen (S. 9) and the dependent letters three. The number of the detailed varieties is made up of seven lengthened long vowels (*aḷapeṭai*), two hundred and sixteen (12 vowels x 18 consonants) syllabic sounds which make two hundered and fifty six in total.

(2) The names of the sounds are *uyir* 'vowel', *mey* 'consonant', *kuṟṟeḻuttu* 'short vowel', *neṭṭeḻuttu* 'long vowel'

V. O. Chidambaram Pillai (Ed). 'Tolkāppiyam - Iḷampūraṇar - eḻuttatikāram' (Tuttukudi 1941). It is referred to as Iḷam. eḻuttu and Devaneyappavanar (Ed) Tolkāppiyam. Naccinārkkiniyar - eḻuttatikāram (Madras 1960) as Nac. - eḻuttu.

1. Iḷam. eḻuttu. P. 6.
2. Tolkāppiyar says that 'the thirty (sounds) from *a* to *ṉ* except the three secondary ones are termed *eḻuttu*'(S.1) So, the commentators take thirty three as the total number.

etc. and there is also the naming of each one of the letters as *akaram*, 'the letter *a*' *kakaram* 'the letter *k*' etc[3].

(3) The order is not elaborately dealt with; but the grammarians usually assume a knowledge of the alphabetic system in Tamil and the unchanging order of the sounds therein.

(4) Quantity (quantum) of any sound is expressed in terms of *māttirai* or unit of time taken in pronouncing a particular sound. A unit is said to be the time taken for snapping of two fingers or for twinkling of an eye (S.7).

(5) The articulation is as given in the chapter on *piṟappiyal*.

(6) *puṇarcci* is nothing but the well-known Sandhi rules.

(7) *taṉmai* is feature.

(8) *vaṭivu* is shape. The last two are not capable of being explained to us by the author according to Nacciṉārkkiṉiyar and Iḷampūraṇar, who state that these are, therefore, to be omitted[4].

1.3. Iḷampūraṇar and Nacciṉārkkiṉiyar refer to another school of thought which does not restrict to these eight aspects but proceeds to explain the study under more than eight heads. These are not in any way connected with the above mentioned eight categories.

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3. S. 134 to 137.
4. Iḷam. eḻuttu p. 6 and Nac. eḻuttu. p. 13.

Iḷampūraṇar gives only the headings which are not at all self–explanatory. These would have been riddles even to this day but for Naccinārkkiniyar's explanations.

What can one make out of such terms as (1) deficiency (2) assemblage (3) separation (4) clustering (5) word formation (6) position (7) class (8) the statement that one becomes many (9) the statement that one thing is the altered form of what has been altered (10) the statement that it is different (11) the statement that it is the same and also the different (12) the statement that it withstands a sandhi (13) the statement that it does not withstand a sandhi and (14) the statement that it does and does not withstand a sandhi?

Both the commentators add that this list can be increased in a similar way.

The question arises whether Tolkāppiyar ever followed any of these kinds of approaches. Naccinārkkiniyar, however, gives examples for these various aspects of study from Tolkāppiyam itself.

(1) Deficiency (*kuṟaivu*) means the contraction in quantity suffered by any sound. *m* under certain circumstances is reduced to half of its original quantity (S.13) and again the diphthongs *ai* and *au* which are considered to be long vowels and as such having ordinarily two units of quantity become shortened to one mātra when occurring in a word (S.57). It is from this explanation of Ñaccinārkkiniyar, we understand the meaning of the term deficiency.

(2) The next is *kūṭṭam* 'assemblage'. That is the coming together of a consonant and a vowel in forming, for

instance, a syllable or a syllabic letter. S.10 and S.17 refer to this syllabic formation. The word *iyaiyiṉum*, the root of which means the same as the root of *kūṭṭam* is used in S.10.

(3) *pirivu* 'separation' is the seperation or disjuncture of two alphabetical sounds in a syllable. In syllabic writing, for instance, if the vowel is removed, the consonant is left there with a dot or a consonantal mark (S.139). Though the word *pirivu* is not used, a synonymous root *nīṅku* is found to be used in the sutra 139.

(4) *mayakkam* may be translated as cluster of sounds especially consonants and this is dealt with in S.23 to S. 30.

(5) *moḻiyākkam* 'word formation' denotes how the sounds form into words. This is referred to in S.45 which speaks of words of one sound, words of two sounds and words of more than two sounds. Here the words are stated to be thus formed out of sounds.

(6) *nilai* 'position' refers to the position of sounds occurring initially and finally in words. Really this is treated under two heads (i) Initial sounds and (ii) final sounds by later grammarians like Pavaṇanti, the author of Naṉṉūl. This position or status of sounds is dealt with in S.59 from the positive point of view and in S.60 from the negative point of view. S. 61 deals with consonants; and subsequent sutras 61 to 65 deal with the particular vowels with which the consonants can occur as initial syllables. S. 69 deals with the sounds occurring finally in the words.

(7) *iṉam* 'class' refers to the grouping of sounds as belonging to a particular articulatory class such as plosives

or hard letters, nasals or soft letters and semi vowels or medial letters (S. 19 to 22). There is also the classification into vowels and consonants.

(8) *oṉṟu palavātal* 'one becoming many' is the next aspect of study. A phrase or compound by a change in its pronunciation, perhaps by the change of juncture, may mean two different things as referred to in S. 141. The often repeated example is *cempu oṉpatiṉ toṭi*, 'nine measures of copper' and *cempoṉ patiṉ toṭi*, 'ten measures of copper' both of which according to the rules of sandhi will be written as *cempoṉpatiṉṟoṭi.*

The rest seems to refer to the various ways of looking at sandhi or morphophonemic alternations.

(9) When a short closed monosyllable ending in *l* or *ḷ* is followed by the dental *t*, the latter changes into an alveolar *ṟ* and cerebral *ṭ* respectively (S.250). But in some cases instead of changing into *ṟ* or *ṭ*, they become *āytam* (S. 369, 399). This statement has to be interpreted in the following way. The *āytam* has actually come from *ṟ*, which itself is the altered form of *t*. This is an illustration for the statement that one thing is the altered form of what has been altered (*tirintatiṉ tiripu atu*).

(10) For the statement that the sound is different, (*piṟiteṉṟal*), Nacciṉārkkiṉiyar refers to S.310 and S. 332. S. 310 speaks of the disappearance of the final *m* and the coming of a plosive same as the initial plosive of the succeeding word. Here, the author implies that the plosive which is coming in is different from the original *m* as against

the statement in the other sutras where a particular altered sound is looked upon as that coming from the original sound itself.

(11) For the statement, that a sound is both the same and different, (*atuvum pir̲itum en̲r̲al*) Naccin̲ārkkin̲iyar refers to S. 115. There, we have something like what modern linguists call a portmanteau morpheme. Tolkāppiyar asserts that an empty morpheme *a* comes in, after the oblique form of personal pronoun, for instance, in *tamakku* 'to him' (S. 161). But in *tamatu* 'his', a difficulty arises because *tam* is the oblique form and *atu* is the genitive case sign. In forms like *nin̲ava*[5] 'your', the final *a* is a genitive case sign; *nin̲* is the oblique form and *v* is a glide; here the medial *a* has to be explained, as an augment, as already posited. The question then arises as to what happens in *tamatu* where there is no such medial *a*. Naccin̲ārkkin̲iyar explains that the *a* in *tamatu* stands for both the initial *a* of the genitive case sign and the empty morpheme, the *a* of *atu* having disappeared in the presence of the other *a*. This seems to be the meaning of the statement that a sound is "the same sound and also a different sound."

(12) *nilaiyir̲r̲u en̲r̲al* "that which withstands sandhi" is spoken of with reference to the juxtapositions in sandhi of the ending of the preceding word and the beginning of the succeeding word (S. 108). These are cases where sandhi rules do operate.

(13) *nilaiyātu en̲r̲al* is that which does not stand a sandhi. The final sound of a word and the initial sound of

5. Pur̲anān̲ūr̲u. 35–13.

a succeeding word cannot be identified in sandhi. They do not appear in such a way that it is made possible to identify them as belonging to two different words. This occurs in corrupted forms (*marūu*) where individual elements are altered beyond recognition. For instance, *arumaruntaṉṉa* 'like rare medicine' becomes *arumantaṉṉa*. It is not possible here to identify the original forms, *arumaruntu* and *aṉṉa*. This is referred to in S. 111, according to Nacciṉārkkiṉiyar.

(14) *nilaiyiṟṟum nilaiyātum eṉṟal* is that which at the same time does and does not withstand a sandhi rule. S.226 states that a long syllable preceded by a short open syllable [(*c*)*vcvv*] gets, if followed by another word, an augment *a*. (*palā*+*kōṭu*>*palāakkōṭu* 'the branch of jack tree'. So does the word of an open long monosyllable (*c*) *vv*).. Both these kinds are here words ending in *ā*. But the word *irā* 'night' does not get this augment *a* (S. 227) Here the augment occurs in one place and does not occur in another. This is different from *uṟaḻcci* 'optional occurrence.'

1.4. The first kind of approach to phonology under eight different heads, as already mentioned above, may be taken up for further consideration and criticism. One may start with a few of these and explain on the basis of Naṉṉūl how a living tradition had grown up. For a better understanding of this point of view, certain statements are repeated.

The name (1), the order (2) and the total number of sounds (3) are according to Nacciṉārkkiṉiyar given in S. 1, 2, 8 and 9. The first sutra speaks of thirty independent sounds and three dependent sounds. S. 8 gives the number of vowels as twelve and S. 9 gives the number of consonants as

eighteen. The second sutra gives details of the three dependent sounds. The number is elaborated according to Naccinārkkiniyar in S.41 and S. 17. S.41 refers to the long vowels getting still further lengthened because of the short vowels following. S.17 speaks of the syllables made up of consonants and vowels. This sutra refers to syllabic writing also, according to Naccinārkkiniyar. From these two sutras, Naccinārkkiniyar states that Tolkāppiyar adds seven *aḷapeṭai* and two hundred and sixteen syllabic sounds to the thirty three sounds already mentioned, to make up in all two hundred and fifty six sounds. The quantity (4) is mentioned in S. 11 which speaks of consonants having half mātra each and in S. 12 which speaks of the dependent sounds also having half mātra each. This kind of classification of aspects of phonological study represents a living tradition; for we find the same in Nannūl also.

Pavananti mentions these[6] in the second sutra of *eluttiyal* and follows the order in his further treatment of all the sounds in this chapter. Here are his headings :–

(1) *eṇ* 'the total number of sounds'; (2) *peyar* 'the names of the sounds'; (3) *murai* 'order'; (4) *pirappu* 'articulation'; (5) *uruvam* 'shape'; (6) *māttirai* 'quantity'; (7) *mutal nilai* 'initial sounds'; (8) *īrunilai* 'final sounds'; (9) *iṭai nilai* 'the medial clusters of sounds'; (10) *pōli* 'the neutralisation of sounds' or 'alternative sounds in a particular environment'; (11) *patam* 'the formation of words out of letters, and (12) *puṇarcci* 'sandhi'.

It will be seen that *uruvam* 'the written shape' mentioned in Nannūl is not the same as *vaṭivam* mentioned by Iḷampūra-

6. Nannūl. S. 57.

ṉar or Nacciṉārkkiṉiyar. *mutal*, *īṟu*, *iṭainilai* and *patam* are not found in the eight aspects of study pursued by the first school of thought. *pōli* is not at all mentioned by either of these schools; probably, this could be included under what the second school referred to as other similar aspects.

Pavaṇanti seems to take an intermediate stand between these two different schools and he has the support of Tolkāppiyar as interpreted by Iḷampūraṇar who speaks of *pōli eḻuttu*[7]. Though Nacciṉārkkiṉiyar also follows Iḷampūraṇar's Interpretation, Pavaṇanti must have relied upon Iḷampūraṇar and not on Nacciṉārkkiṉiyar whose lifetime is after Pavaṇanti.

1.5. Though both the commentators speak of Tolkappiyam discussing all these varieties of aspects, it will be very difficult to prove that Tolkāppiyar's scheme of study of phonology is based on these. If *taṉmai* 'characteristic feature' and *vaṭivu* 'shape of sounds' are inexplicable as the commentators assert, why these also should be included to swell up the number to eight?

Number is, however, certainly fundamental in a study of phonology because one must know how many phonemes are there in the language. Further classification of these sounds into *tokai* 'summarised total', *vakai* 'the classified categories' and *viri* 'the total number when detailed elaborately', may be helpful for future references. But, it will be difficult to assert that these are fundamental to the study of phonology. One can bring, what is important here under 'class' or 'classification'. Tolkāppiyar does refer to numbers here and there. It is, however, difficult to bring these references under

7. Iḷam eḻuttu. P. 22.

tokai, vakai or *viri* as in the case of Naṉṉūl. There are no two opinions about Naṉṉūl following this method of study. Naṉṉūl uses even the word *viri*[8] especially when it gives the total number of dependent letters as three hundred and sixty nine. Tolkāppiyar never does so. S. 41 and S. 17 are referred to by Nacciṉārkkiṉiyar for *viri*. In S. 41, the author mentions only about long vowels, *neṭṭeḻuttu,* becoming *aḷapeṭai*. So also, S. 17 refers to consonants combining with vowels to form syllables. No number is given. To weave out an implication of a statement of numer is to do violence to Tolkāppiyar's scheme.

It is true, however, that quantity is discussed as a separate and important aspect of sound. Articulation is also dealt with in *piṟappiyal*. So also, *puṇarcci* or sandhi is dealt with from the fifth chapter onwards to the end of *eḻuttatikāram*. Nowhere, however, does Tolkāppiyar mention the order of these sounds. Tolkāppiyar assumes a knowledge of the traditional way in which the alphabet is written and studied; He, like Pāṇini, has no Mahēsvara sutra from which he could form the mnemonic forms. Therefore, to interpret his sutra as giving the order of sounds will be far-fetched.

The names are certainly discussed. These names are technical or grammatical terms which are defined by enumeration (S.3 and 4) or by reference to the well-known order of the Tamil alphabetic system (S.8 and 9). In all cases, the number will occur as part and parcel of the definition and enumeration. Really, all these amount to an explanation of the technical terms. And mātra or quantity is one such term.

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8. Naṉṉūl. S. 61.

Apart from the explanation of technical terms, we have the articulation of sounds also and finally of sandhi in Tolkāppiyam, in which *piṟappu* and *puṇarcci* are basic.

1.6. One may now pass on to a criticism of the second school of thought The coming together of sounds or letters, *kūṭṭam*, to form into syllables for being looked upon as a unity from one point of view and their standing separately, *pirivu*, as two different sounds from another point of view, are here only referred to a study of the principle of syllabification in the language. All these together give us a picture of the syllabic pattern of a word. What is called *moḻiyākkam* 'formation of words out of sounds', also, has reference only to a study of these patterns. There are also aspects of sandhi discussed in Tolkāppiyam; but the fundamental unity of these sandhi aspects are not explained or brought out by these kinds of classification. The class, *iṉam*, is mentioned here as reference to the classification of sounds, which forms really a part of the explanation of the technical terms.

The omission of these by the first school of thought is certainly serious. This omission is, howerer, compensated by its conception of *tokai*, *vakai* etc. The rest, referred to as various statements, are really explanations or conventions followed in formulating the morphophonemic alternations. It will thus be seen that though the second school of thought has the emphasis on certain important aspects of study, it has not mentioned of articulation, quantity or sandhi. This is certainly a serious defect. Again, it does not go to the root of the matter but it merely deals with external aspects, so much so, the whole classification appears disconnected and even trivial.

1.7. There is another attempt at bringing about a synthesis of all these aspects under two major heads of *karuvi* and *ceykai*[9]. This is mentioned by both the commentators. *karuvi* is the means; and *ceykai* is what is actually performed with these means or instruments. The main theme of phonology is looked upon as sandhi from this point of view. It is, probably because of this, Vīracōḻiyam, a medieval grammar, discusses *eḻuttatikāram* 'phonology' under the chapter called *cantippaṭalam* which means only the chapter on sandhi. It is, only for the understanding of sandhi that all the rest, explained above, are studied, according to this way of thinking. Now this *karuvi* and *ceykai* are divided into four categories, a classification which reminds one of the division of *akam* and *puṟam* in poetry and philosophy. These two have *akam*, *akappuṟam*, *puṟam* and *puṟappuṟam*, that is, internal, interio-external, external and exterio-external.

The interior *karuvi* refers to the explanation given with reference to the endings of words which usually take part in sandhi. For instance, the statement of Tolkāppiyar that the short *e* and *o* do not occur at the end of a word except in certain cases, (S. 272) is not a rule of sandhi, but only an explanation or statement on the basis of which the sandhi rules can be thus stated : that the plosive doubles after *e* and *o* in certain contexts. Because the first statement or explanation relates to the final position in a word which takes part usually in sandhi, it is called interior *karuvi* serving as a tool for further study of sandhi.

But, when one lays down a rule with reference to the individual nouns forming into the words and not to their

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9. Iḷam eḻuttu. P. 6 and Nac. eḻuttu P. 15.

endings, it is exterior. This exterior *karuvi* is referred to the formation of words out of sounds, the initial and final position of various sounds, the allophones of phonemes in the second chapter, *moḻimarapu.* The description of the various kinds of changes undergone in sandhi, the classifications of the various forms of sandhi and of the coming in of augment etc. discussed in *puṇariyal* are not interior *karuvi* because they do not refer to the initial or final part of a word with reference to which the alternation is going to be mentioned; nor are these treated as exterior. And so they are called interio-exterior *karuvi*. The sounds of the language, their classification, their technical names and their articulation are indirectly necessary for an understanding of the formation of words and of sandhi. These are much more exterior than statements in *moḻimarapu* and therefore the called exterio-external.

Similarly *ceykai* is also looked upon from the point of view of these four gradations. When a final sound of a word suffers an alternation, it is something of an interior change, a change occurring within a word. When there is an augment coming in at the end of the word, it does not lie within the word; but all the same it is not external to that word like the succeeding word. Therefore, such alternations are called interio-external (S. 163). The change, which occurs with referrence to the initial of the succeeding word is a change or alternation which is exterior to the first word. Therefore, this alternation is called exterior (S. 149). As an example of exterio-exterior alternation the coming in of the glides is mentioned, because the glides which come in between the words, cannot be explained away as alternations occurring either in the succeeding or preceding and hence it is called an

exterio-external alternation. This may not be quite correct for if it is an off-glide it has to be attached to the interior word and if it is an on-glide it has to be attached to the exterior word. But anyway this is the explanation that one gets from the commentators.

1.8. After a study of these one has a feeling that all this is strained and far-fetched. With reference to glide there seems to be an apparent contradiction in both the commentaries. But in the commentaries on the particular sutra (S. 140), the commentators speak of it as *karuvi* 'instrument.' Really there is no contradication in the general statement that glide may come in between two adjacent vowels when one vowel ends a word and another vowel begins the succeeding word. But in writing the commentary on that sutra, Naccinārkkiniyar points out that Tolkāppiyar is following his predecessor Akattiyar and, therefore, the sutra is to be interpreted as to imply what Akattiyar had stated on glides, i.e. (1) *y* occurring after *i*, *ī*, and *ai* and (2) *v* occurring elsewhere.

Iḷampūraṇar significantly enough does not refer to the sutra of Akattiyar. (Can it be that it was not in existence then in his age or that he did not recognise it as genuine? One may note his doubts [10] about the tradition of Paṉṉiru paṭalam [11].) He himself, however, mentions the rule about the glides.

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10. Iḷampūraṇar–poruḷatikāra urai, (Madras, 1953) P.75

11. The traditional belief is that Paṉṉirupaṭalam, a grammatical work was jointly written by the twelve disciples of Akattiyar. Tolkāppiyar is said to be one of the disciples. But this belief is not generally accepted by present–day scholars.

It is true that if one were to judge from the bulk alone, one must admit that the sandhi rules do occupy the major part of *eḻuttatikāram*. But, no one to-day can assert seriously that all our study of phonology is a means to our correct understanding of morpho-phonemic alternations. It is because of this wrong perspective that the later day grammarians have not realised the importance of the other aspects of phonology. It is also because of this perspective that these other aspects have not been studied in greater detail in later ages to reveal more and more of their secrets.

In the Mīmāmsaka system, the actions are emphasised as fundamental. Probably, this has something to do with the emphasis on sandhi as action in phonology, and everything else is merely a tool.

1.9. The way in which Tolkāppiyar approaches phonology can be very well understood by studying the names of the various chapters of *eḻuttatikāram*. But unfortunately their meanings are not very clear. It is necessary that we should interpret the titles of the chapters in relation to the subject matters of the respective chapters. But, generally it may be stated that he mentions phones by themselves in the first chapter, *nūṉmarapu* and later phones in words where the question of allophones is taken up in the second chapter, *moḻi-marapu*. He next describes their articulation in the third chapter, *piṟappiyal* and finally describes the sandhi which are in a way the changes of the phones in particular environments, phonological or morphological in the last five chapters, 5 to 9. The preliminary explanations required for understanding the sandhi are given in the fourth chapter, *puṇariyal*. This arrangement seems to agree with modern procedure as can be seen in what follows.

Two. SOME TECHNICAL TERMS

We may now proceed to consider some of the technical terms used in Tolkāppiyam.

2.1. The question is whether the term *eḻuttu* refers to the spoken sound or the written symbol. *eḻuttu* to-day means only the written symbol. The commentator of Yāpparuṅkalavirutti holds the same view which he expresses by quoting an old sutra, *eḻutappaṭutaliṉ eḻuttē ....*[1]. '*eḻuttu* is so called because it is written'. But, Tolkāppiyar seems to use this term to denote sound in the sutras 3, 4, 5, 17, 33, 35, 39, 41, 42 and 53 and *piṟappiyal* 'articulation of speech sounds' also suggests that Tolkāppiyar is speaking only of sound rather than written symbol. Here, it seems appropriate to derive the term *eḻuttu* from the root form *eḻu* which Tolkāppiyar himself uses in the phrase *kūṭṭi eḻūutal* (S. 6). It is true that he also makes reference to written symbols in some

1. S. Bhavanandam Pillai (Ed) Yāpparuṅkalavirutti – P. 18.

sutras like 14, 15, 16, 17 etc. These sutras often refer to consonants as *puḷḷi*. Except when the written characters are referred to, *puḷḷi* simply means a consonant. Naccinārkkiniyar's conception of *eḻuttu* is discussed elsewhere (Chap. 4 Phonological word).

Kuṟṟ-eḻuttu (S. 3) and *neṭṭ-eḻuttu* (S. 4) refer to short vowels and long vowels respectively. *eḻuttu* here cannot mean the written symbol. The concepts of *mutal-eḻuttu* and *carp-eḻuttu* may be taken for consideration at a later stage.

2.2. The term *uyir* (S. 8) refers to vowel and the term *mey* (S. 9) to consonant. Dr. Caldwell praises them as beautiful metaphors[2]. Naccinārkkiniyar explains these terms as follows: Vowel is compared to soul and consonants to the body as the consonants cannot be uttered independently without the help of the vowel[3]. Civañāṉamuṉivar also holds the same opinion[4].

The obstruents have no existence of their own; all the other consonants, sonorants, can, however, be produced without the support of vowels. To this extent, it may be said that the observation of Naccinārkkiniyar and Civañāṉamuṉivar apply only to six out of eighteen consonants.

The conception of units in metre strengthens the above mentioned view of consonants. The consonants in verses are not counted as separate from the vowels coming with

2. Caldwell. 'Comparative Grammar of the Dravidian Languages' P. 133 (Madras, 1956).
3. Nac. eḻuttu - P. 25.
4. Civañāṉamuṉivar 'Tolkāppiya-c-cūttiravirutti' P. 25 (Madras, 1952).

them[5]. Syllables are formed by vowels either independently as in the initial position, or in combination with the consonants. If the explanations of those two commentators are to be understood as referring to syllabic sound, they can be accepted. Perhaps, on this basis it has been considered that in the syllable, the consonant has no quantity of its own and that it is the vowel that has any quantity[6].

2.3· Now, on this topic of quantity, the definition of one unit of quantity is given in S. 7 as "the duration of a twinkling of an eye or a snapping of two fingers".

The commentators, further, speak of different kinds of measurements and suggest that this kind of measurement is *cārttiyaḷattal*. *Cārttiyaḷattal* is that method of measurement in which the duration taken for a particular action is compared to. Here a unit of sound is referred to as the time taken for a twinkling of an eye or for the snapping of two fingers.

This sutra, according to Iḷampūraṉar, is a definition of *māttirai* whereas Nacciṉārkkiṉiyar takes it as giving the duration for *māttirai*.

Nacciṉārkkiṉiyar starts with saying that the sutra gives the duration for the *māttirai* but later says that "Tolkāppiyar has given only the quantity for letters and not the quantity for *māttirai*". This seems to be a contradiction. The word *māttirai* occurs in the sutra and he interprets as *eḻuttiṉ māttiraikku aḷavu* 'the measurement of the quantity of the sound'. He further adds that all the scholars have stated

5. Tolkāppiyam – poruḷatikāram. S. 351.
6. Tol. eḻuttu. S. 10 and Nac. eḻuttu. P. 26.

that 'the twinkling of an eye and the snapping of two fingers' refer to the quantity of sounds, and, therefore, Tolkāppiyar also might have meant the same. Hence, it looks as though the first sentence should be *eḻuttiṉ māttiraikku aḷavu* and not, merely *māttiraikku aḷavu.* He seems to feel that the standard unit of sound is a duration taken in the natural pronunciation of a short vowel. Therefore, the short vowel is the unit; the quantity of a long vowel is double this unit; while half of it is the quantity of a consonant. Iḷampūraṇar explains that the unit is called *māttirai* and this has been defined as a common measurement in relation to which the short vowel, the long vowel and the consonant are measured. But, perhaps, the clue to Naccinārkkiṉiyar's interpretation lies in Iḷampūraṇar's commentary itself. "It is not possible to measure this *māttirai* in the same way as one can speak of *nāḻi* being four times the measure called *uḻakku*". From this Naccinārkkiṉiyar seems to infer that *māttirai* itself is not defined in terms of some other measurement.

Naccinārkkiṉiyar, however, explains the implication in a different way. If one were to look for a definition of the measurement of *kaṇṇimai* 'twinkling of an eye' or *noṭi* 'a snapping of two fingers' then, another smaller basic unit has to be thought of. This will lead us to infinite regressions. Therefore, Naccinārkkiṉiyar concludes that Tolkāppiyar has not given the measurement for *māttirai* but only a unit for measuring the sound.

2.4. With reference to the quantity of sound, Naccinārkkiṉiyar discusses the propriety of certain terms[7].

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7. Nac. eḻuttu. PP. 21 and 22.

Kuṟṟeḻuttu means short vowel as already stated and *neṭṭ-eḻuttu*, a long vowel. Length can be spoken of only with reference to the same class. Therefore, consonants, though shorter than short vowels, do not belong to the class, vowels. Hence, they are not called shorter sounds as such. Although the dipthongs *ai* and *au* have no respective short sounds to justify them being called long, they are one with the other long vowels in having two *māttirai* units and so they are called long vowels.

The consonants have only half a *mattirai* each (S. 11) and dependent sounds, *Kuṟṟiyal–ukaram* '*u* shorter than short *u*'. (This is simply referred hereafter to as shorter u), *Kuṟṟiyal-ikaram* '*i* shorter than short *i*' (referred to as shorter i) and *āytam*, have also half a matra each (S. 12). The shortened *m* has only one fourth of a mātra, according to the commentators[8].

The sutra 10 states that when the vowel is combined with a consonant, the nature of the former is not altered. But the commentators interpret this as follows: The *uyirmey* has the same *māttirai* as that of the vowel, involved. "The nature of the vowel (*uyir–iyal*) mentioned in the sutra, refers, according to Iḷampūraṇar 'to its *māttirai* to a greater extent and to its name and *eṇ* (number ?) to a lesser extent'. What is meant by *eṇ* is not clear. But Naccinārkkiniyar explains the situation as follows: The simple vowel and the *uyirmey* have the same *aḷavu* (*māttirai*), *eṇ* and *kuṟi*. These are also not clear.

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8. Iḷam. eḻuttu. P. 8 and Nac. eḻuttu. P. 20.

Iḷampūraṉar explains as to why *māttirai* is involved in this sutra. He states : "This syllabic sound is really a combination of a vowel and a consonant. But, in the sutra, the vowel is given the prominant position, probably because the *māttirai* of the *uyirmey* is the same as that of the vowel". This explanation is not found in Naccinārkkiniyar's commentary. But he raises the question as how one and a half *māttirai*s and two and a half *māttirai*s[9] can become one and two *māttirais* respectively; and answers it with the following: "When the salt is added to water, the quantity of the water remains the same. Likewise, on addition of a consonant does not change the quantity of the vowel."

Naccinārkkiniyar says that Uraiyāciriyar (literally commentor usually identified as Iḷampūraṉar) quotes a verse from Nālaṭiyār (103), according to which *kaḷāṅkaṉi* (a black coloured fruit) and *viḷāṅkaṉi* (a round shaped fruit) are black and round respectively, not because they have painted or shaped as such[10].

2.5. The pronunciation of the syllabic letters is explained in S. 18, wherein it is stated that the vowel is pronounced after the consonant.

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9. *uyirmey* can be short or long. If it is composed of a short vowel, it ought to have one and a half mātras (one for short vowel and half for consonant) and if the vowel is long, it ought to have two and a half (2 for long vowel) mātras.

10. This portion expressing this statement is not found in the present day edition of Iḷampūraṉar and this shows that the commentaries have not reached us in their original forms.

The term *uyirmey* can be treated in two different ways. In one sense, i. e. when it is treated as *aṉmoḻittokai* (bahu vrīhi samāsa), it forms one unit and in another sense, i. e. when treated as *ummaittokai* (co-ordinate compound), it is a combination of *uyir* and *mey*. The term *uyirmey*, according to Iḷampūraṇar, has only a single referent different from each of the two components. In the commentary of the next sutra (S. 18) he says that this combination is not like the coming together of the tips of the two fingers but is like a harmonious combination of milk and water[11]. Naccinārkkiniyar, however, asserting the view that the term *uyirmey* can have double or single referent points out that the combinations may be either like that of the tips of two fingers joining together or like that of the harmonious mixture of salt and water.

Here it is intersting to note how Naccinārkkiniyar excels in using the second simile quite different from his predecessor. He intended to convey by the conception of *māttirai* also in this simile. Just as the mixture of salt and water does not increase in quantity the combination of vowel and consonant does not change the quantity of the syllable. Iḷampūraṇar's simile in this respect, fails to do justice to the concept. Naccinārkkiniyar proceeds to extend the simile by saying that the vowel takes the characteristic feature of the consonant as the water mixed with salt takes the quality of the salt. But the implication of this statement is not clear.

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11. Naccinārkkiniyar uses Iḷampūraṇar's simile of the combination of water and milk in a later context (Nac. eḻuttu. S. 138. P. 93).

2.6. Tolkāppiyar specifically states that there is no sound in Tamil which has a duration of three mātras (S.5).[12] But he adds that, if lengthening is required, it is effected by combining the long vowel with the required number of short vowels (S. 6).

Iḷampūraṉar comments that if a long vowel is to be followed by a short vowel, the pronunciation of which will be without break or hiatus.

Nacciṉārkkiṉiyar in his commentary on S.6. pointing out the plural usage of the term *avvaḷapuṭaiya* 'that much quantity' says that an *aḷapeṭai* sound can have even four mātras. This is on the authority of Māpurāṇam which Nacciṉārkkiṉiyar asserts, is earlier than Tolkāppiyam. He gives examples of *aḷapeṭai* having four mātras from Tirukkuṟaḷ[13], Malaipaṭukaṭām[14] and from Nālaṭiyār[15]. In Tolkāppiyam itself one has reference[16] to words which has got four mātras which is not referred to by Nacciṉārkkiṉiyar : *tōḻi* 'lady's maid' is *tōḻii.*

Nacciṉārkkiṉiyar makes a division of *aḷapeṭai* into two, (i) *iyaṟkai aḷapeṭai* 'natural' and *ceyaṟkai aḷapeṭai* 'artificial'. The artificial *aḷapeṭai*s are those which the poets use for metric purposes. Further, he points out that longer sounds

12. This kind of statement is made according to some because of the existence of such a unit sound in Sanskrit which is called pluta (R. Venkatarajulu Reddiar, Eḻuttatikāra vāraycci, P. 15).
13. Tirukkuṟaḷ. 1200
14. Last appended Veṇpā of Malaipaṭukaṭām in Pattuppāṭṭu.
15. Nālaṭiyār. 18.
16. Tolkāppiyam - collatikāram S. 127.

than the *aḷapeṭai* are possible only in music. A discussion of such sounds finds place in Tolkāppiyam itself at a later stage (S. 33).

There is, yet, another problem discussed by Naccinārkkiniyar in the commentary of this sutra but the same is dealt with under S. 41 by Iḷampūraṇar. S. 41. says: "whenever there is deficiency of sound in words occurring in poetry the corresponding short vowels will come and stand after the long vowel and fill up the deficiency in the sound".

The word *otta* found in the sutra is interpreted by Iḷampūraṇar as referring to the similarities in shape, sound and behaviour in sandhi of the short vowel to the long vowel. He also considers that the word *moḻi* in the sutra as denoting the *aḷapeṭai* sound being monosyllabic and having some meaning also[17]. Since, *aḷapeṭai* occurs only in words can one call it also a dependent sound (like the other dependents)? In a majority of cases, since, *aḷapeṭai* sounds can occur themselves as words and they can function as independent entities, they cannot be called dependent sounds. But, in some cases, the *aḷapeṭai* sound occurs as a part of a word, for instance, in *uṟāatu* 'it (will) not touch'.

As already stated, Naccinārkkiniyar explains these under the commentary on S. 6. He has always his eye on the chapter on prosody. He finds that the *aḷapeṭai* occurs as a word. And it is sometimes counted as a unit in metre and sometimes

17. It is not possible to give any example for *aḷapeṭai* occurring as words themselves in contrast with the corresponding long vowel, as we do not find any sure references either in the sutras of Tolkāppiyam or in the commentaries.

not. So, *aḷapeṭai* can also be taken as a separate sound and, therefore, these *aḷapeṭai*s can be added on to the thirty three (30 primary and three secondary) sounds mentioned in the first sutra, thus making in all forty sounds.

The term *moḻi* is interpreted by Naccinārkkiniyar as referring to the eight kinds of disyllabic feet, that is, *iyaṟcīr*. Accordingly, there are eight kinds of *aḷapeṭai*. Moreover, he refers to another school of thought, thus: "These authors of prosodical works who do not accept that the lines should be distinguished according to the occurrence of particular number of sounds in them, speak of this *aḷapeṭai* either occurring all alone as separate word (i. e. monosyllabic word) or occurring in a word initially, medially, or finally. If one has to take only the seven monosyllabic *aḷapeṭai*s occurring by themselves as independent words, there will not be any room in Tolkāppiyam for different kinds of disyllabic feet other than open long monosyllabic words".

It will be seen, here, that Naccinārkkiniyar differs from Iḷampūraṇar. It is unfortunate that Iḷampūraṇar's contention of *aḷapeṭai* occurring without being a separate word by itself in rare instances has not been accepted by the successors of Iḷampūraṇar. The influence of Sanskrit conception of pluta was so great that the real nature of *aḷapeṭai* in Tamil had been forgotten. Hence the word *kūṭṭi* 'having combined' of S. 6 is not sufficiently explained by Naccinārkkiniyar.

The *aḷapeṭai* is the combination of the long vowel and the short vowel. But, according to Naccinārkkiniyar, it does not remain as such[18]. He writes that it becomes one whole sound

18. Nac. eḻuttu. S. 6.23.

without any break; this compounded sound is like the red colour born out of the mixture of saffron and bleached shell powder. Therefore, it is one unified-sound (as pluta in Sanskrit). He further adds that this peculiar *aḷapeṭai* sound can be experienced only when a long vowel and a short vowel are pronounced together. The *aḷapeṭai* is not realised elsewhere, as the oil is not realised in the seasame seeds unless they are ground in the rotary mill.

2.7. It will serve to clarify the ideas of the commentators if we take into consideration the conception of later day grammarians. Ilakkaṇakkottu, a grammar of the 17th century, discusses about *aḷapeṭai* in detail[19]. It divides *aḷapeṭai* into various categories, viz., (i) *iyaṟkai aḷapeṭai* 'natural *aḷapeṭai*' (ii) *ceyaṟkai aḷapeṭai* 'artificial *aḷapeṭai*' (iii) *eḻuttuppēṟu aḷapeṭai* '*aḷapeṭai* occurring in Sandhi' (iv) *icainūl aḷapeṭai* '*aḷapeṭai* in music' and (v) *oṟṟuppēṟu aḷapeṭai* 'consonantal *aḷapeṭai*'. We can ignore the last category since neither Tolkāppiyam (in eḻuttatikāram), nor the commentators speak about this.

(1) The natural *aḷapeṭai* is that which occurs in a natural way in speech. . For instance, when one calls a man at a distance, or when he cries aloud in sorrow, or when he complains to another of his affliction, or when he goes about hawking his goods so as to be heard by others, the lengthening is not effected consciously and it occurs naturally.

(2) Artificial *aḷapeṭai* is that where the lengthening is consciously made with a view to meet the metrical exigencies in poetry.

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19. Cuvāminata tēcikar, Ilakkaṇakkottu, S. 90.

(3) *Eḻuttuppēṟu* is the coming in of a short vowel after a long vowel in sandhi.

(4) *icainūl aḷapeṭai* is that which occurs during *ālāpana* in music.

From another point of view, it divides *aḷapeṭai*s into three categories. The first is *kuṟṟeḻuttu aḷapeṭai* '*aḷapeṭai* derived from a short vowel'. The short vowel gets lengthened into a long vowel which later gets elongated into an *aḷapeṭai*. The second category is *neṭṭeḻuttu aḷapeṭai* '*aḷapeṭai* derived from a long vowel'. Here, long vowel is lengthened into an *aḷapeṭai*. The third is *oṟṟeḻuttu aḷapeṭai* '*aḷapeṭai* of consonants' which need not be taken into consideration here, as already stated (P. 27).

Ilakkaṇakkottu divides these *aḷapeṭai*s from yet another point of view, i.e., from the point of view of its position in a word, viz., initial, medial or final.

Yāpparuṅkalavirutti[20] and Yāpparuṅkalakkārikai[21] speak of the *aḷapeṭai* as monosyllabic unit. In the commentary on Yāpparuṅkalakkārikai[22], *uyiraḷapeṭai* is identified with Sanskrit pluta as seen in an anonymous sutra quoted in it. Palkāyaṉār who is also quoted in the above commentary considers *aḷapeṭai*, which, according to him, has three mātras, as a third variety of vowel in addition to short and long vowel. According to the author of Yāpparuṅkalavirutti[23], there can

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20. Yāpparuṅkalavirutti, P. 42.
21. Yāpparuṅkalakkārikai, P. 141.
22. Ibid. P. 12.
23. Yāpparuṅkalavirutti, P. 24.

be more than three mātras for *aḷapeṭai* but he has not discussed about it in detail as it is not very significant in poetry.

According to Naṉṉūl[24], "when there is a metrical deficiency, the initial, medial and final long vowels may further be lengthened and this extra length is represented by the corresponding short vowel symbol". On the basis of occurrence of long vowel in a word, it states that *uyir-aḷapeṭai* '*aḷapeṭai* of the vowel' is twenty one in number[25].

We may, now, consider the sutra in Naṉṉūl as interpreted by commentators in relation to Tolkāppiyar's view on the subject.

Mayilainātar, the first commentator of Naṉṉūl points out[26] that Pavaṇanti disapproves the theory of combination of two vowels to give three mātras, by his statement of the elongation of two mātras into three mātras. Further, Mayilainātar quotes a sutra which states that "one should distinguish and fix (1) the sounds, (2) their symbols, (3) their places of occurrence and (4) their quantities without any confusion" and, on this basis, he criticises those who hold that it is the combination of two sounds which becomes an *aḷapeṭai* as they have not talked about their symbols.

It is clear from his commentary that there are two theories regarding the *aḷapeṭai*s, one taking it as the combination of two sounds and of the other as a single unit having

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24. Naṉṉūl. S. 91.
25. Ibid. S. 60. There are seven long vowels occurring in three positions of a word which make the total number of *aḷapeṭai* into twenty one.
26. Mayilainātar, Com. P. 31.

three mātras. One may surmise that the first view is to be attributed to Tolkāppiyam. Mayilainātar, however, supports Naṉṉūl in this matter.

Caṅkaranamacivāyar, another commentator of Naṉṉūl, seems to take a compromising attitude between these two divergent views. He puts forth his arguments as follows :[27] "Sounds are different because of the differnces in articulations. If that is so, it is not correct to say that *aḷapeṭai* is a combination of two sounds. Besides, the name *aḷapeṭai*, will not suit to this. Hence, Naṉṉūl has referred only to the symbolisation of the extra length. As Tolkāppiyar has said that the short vowel is added to make up the metrical deficiency and is also symbolised thus, he does not apparently differ from Naṉṉūl. If that is not so, Naṉṉūl is to be taken as supporting the later view that *aḷapeṭai* is one elongated long vowel."

Civañāṉamuṉivar who has revised the commentary of Caṅkaranamacivāyar tries to interpret Tolkāppiyam also in consonance with Naṉṉūl. He states thus[29] : "The sounds are many because of the difference in articulation. Therefore, in order to indicate that *aḷapeṭai* is articulated as a single sound being the changed form of the long vowel, Pavaṇanti says that the long vowel gets lengthened and the symbol for the elongation will be the corresponding short vowel. In order to indicate that an *aḷapeṭai* is nothing else but an elongated pronunciation of the unison of a long and its corresponding short vowel, which are united like the mixture

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27. Caṅkaranamacivāyar. Naṉṉūl. Com. P. 44.

28. Civañāṉamuṉivar, Naṉṉūl commentary, P. 44.

of water with water[29]. Tolkāppiyar says that 'wherever there is deficiency of sound in words occurring in poetic metre, the corresponding short vowels will come and stand after the long vowels and fill up the deficiency in the sound'. Even though Pavaṇanti agrees with Tolkāppiyar in interpreting *aḷapeṭai* in terms of its articulation, he differs from him in considering the short vowel only as a symbol. Those who do not understand this, interpret according to their whims and fancies that the long vowel and the short vowel come together and form an *aḷapeṭai* just like two fingers are joined together. The fact that the term *aḷapeṭai* is used instead of *eḻutteṭai* 'increase of letters' is enough to disprove the latter interpretation. In that case, one may argue that it is not appropriate to consider a single unit as a combination of items containing two mātras and one mātra respectively and syllabify it metrically. But it is not true, because the metrical syllabification is not based on letters but on sounds, as it is made clear in an old sutra quoted in Yāpparuṅkalavirutti"[30].

According to the interpretation of Civañāṉamuṉivar, there is no difference between Tolkāppiyam and Naṉṉūl but the difference lies only in the commentaries.

We are not sure as to what Civañāṉamuṉivar means by *eḻutt–eṭai*. His argument on the basis of prosody does not seem to be correct.

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29. This seems to accord with the view of Nacciṉārkkiṉiyar. But there is difference that whilst Nacciṉārkkiṉiyar's simile emphasises the compounding of two different things, Civañāṉamuṉivar's emphasises a compounding of similar things.
30. Civañāṉamuṉivar, Naṉṉūl – viruttiyurai, P. 44; and Yāpparuṅkalavirutti P. 38.

Among the long vowels, *au* does not occur medially and finally in the native words. But the commentators of Yāpparuṅkalam[31], and Yāpparuṅkalakkārikai[32] and Mayilainātar[33] admit the occurrence of *au* medially and finally as in *manauukam* and *anauu*. (The meanings of these words are not known). Civañāṉamuṉivar refuses to admit these two positions of *au* and hence the total number of *aḷapeṭai*s will be ninteen. To justify Pavaṇanti's stand that *aḷapeṭai*s are twenty one, Civañāṉamuṉivar suggests two more varieties of *aḷapeṭai* viz, *iṉṉicai aḷapeṭai* and *collicai aḷapeṭai*. *Iṉṉicai aḷapeṭai* is the *kuṟṟ-eḻuttu-aḷapeṭai* already explained in relation to Ilakkaṇakkottu (See P. 28). The function of *collicai aḷapeṭai* is to derive a verbal participle. For instance, *nacai* 'desire' which is considered as a noun becomes the verbal participle, *nacaii* 'having desired' by elongating the final *ai* in the base.

From what we have so far discussed, it is clear that there are two theories, one taking *aḷapeṭai* as disyllabic and the other as monosyllabic. If one is to rely upon old Tamil prosody, it will appear that the disyllabic view is older reflecting the older conditions of the language[34]. This situation continued to certain extent even in later poetry. The monosyllabic view is a later development, probably due to Sanskrit influence. During the transition period, there were only a few instances of *aḷapeṭai* having monosyllabic status. In course of time, this got established itself replacing the disyallabic status of *aḷapeṭai* completely.

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31. Yāpparuṅkalavirutti – P. 23.
32. Yāpparuṅkalakkārikai – P. 17.
33. Mayilainātar, Naṉṉūl urai – P. 31.
34. T. P. Meenakshisundaram, 'The Tamil sounds' (An unpublished thesis) P. 75.

For undestranding the above position, one must examine the possibility of the occurrence of vowel clusters in ancient Tamil. The occurrence of glide to avoid hiatus was not compulsory in ancient Tamil (as it was in Medieval Tamil[35]) as it can be inferred from Tolkāppiyar's sutra 140 and also from the statement[36] of Iḷampūraṇar. It should be noted that the sutra is in the form of a permissive rule rather than obligatory. The term *varaiyār* 'no one will prevent' in the sutra suggests that the occurrence of the glide was once considered to be a mistake. Therefore, it is clear that vowel clusters were possible in ancient Tamil.

To appreciate fully the significance of vowel cluster in Tolkāppiyam, we may analyse the forms found in Tolkāppiyam and try to interpret them from the modern point of view and point out the various stages of their developments.[37]

The first stage was when there were vowel clusters frequently used in the language. Then came the second stage when two adjacent short vowels become harmonised into a single long vowel. In the negative finite verbs like *uraiyār* 'they (will) not tell' (S. 1132), *peṟāar* 'They (will) not get' (S.1000) etc, the roots are *urai* and *peṟu*. Even though *ār* can be taken as third person epicene plural ending on the basis of S. 691, the problem is how the negative is expressed here. The later day grammarians have solved this by saying that the very absence of the tense sign in its usual place between

35. Vīracōḻiyam S. 13. and Naṉṉūl S. 161.

36. *Uṭampaṭumey kōṭal orutalai aṉṟu.* Iḷam. eḻuttu P.49 and Nac. eḻuttu P. 94.

37. T. P. Meenakshisundaran, 'The pluta in Tamil' P. 270 ff.

the root and the gender suffix expresses this negation. But the personal ending having short vowel rather than long vowel is more common in Old Tamil, and so *ār* can be taken as the gender suffix here. In Telugu, the negative form is of the type *cēyanu* 'I will not do' where the medial *a* is the negative suffix. In the same way, Tamil form can be explained as having the negative form *a* and the personal ending *ar* by introducing a morphophonemic rule V1 + V2 > V2V2. This same rule can explain the other negative forms like *uraiyēm* 'we (will) not tell', *uraiyīr* 'you (pl) (will) not tell' etc. The negative relative participle forms like *aṭaṅkā* 'that which will not subdue' (S. 1096) *kūṟā* 'that which (will) not tell' (S. 1228) etc. can be explained as having the negative *a* and the relative participle *a*. With this morphophonemic rule, the finite forms having the long vowels in the personal endings can be explained as the relative participle plus the personal ending (*ceyta* + *aṉ* > *ceytāṉ* 'he did').

In the next stage, before the glide came into general usage, *a* + *a* > become *ō* especially in the participial nouns. Tolkāppiyar has referred to this development in S. 696.

In the subsequent stage, we have glides coming in but some of these glides in the age of Tolkāppiyar are onglides. *ā* + *iru* > *āyiru* 'those two' (S. 60), *mā* + *iru* > *māyiru* 'great wide' etc. In the post - Tolkāppiyam period, off-glide started replacing the on-glides and in course of time the replacement was complete except in rare instances which could be considered as preservation of older forms.

There are some other instances of vowel clusters which are worth considering. The augment *u* is said to occur in some words, for instance, after words like *paḻu* 'demon' and

the combination of *paḻu*+*u*, according to Tolkāppiyar will be 'lengthening of the final syllable *ḻu* plus the *u* following it '(S.261), thus yielding *paḻūu*. So also, when the word *atu* 'it-that' and *aṉṟu* 'not' are coming together, the change is explained by Tolkāppiyar as the second word remaining without any alternation, the final *u* of the first word *atu* having become *ā* (S. 257), *atāaṉṟu*. This means that Tolkāppiyar looks upon the second word as distinct and undergoing no change, the change, if any, occurring only in the first word.

These two changes can be brought under the morphophonemic rule V1+V2>V2V2V2 and this rule is helpful in explaining many other forms occurring in Tolkāppiyam and Sangam literature. The forms *cilāam* and *palāam* are curious, but the formation of these words can be explained with the help of the above sandhi rule as follows: *cila* 'few'+*am*> *cilāam* and *pala* 'many'+*am*>*palāam*. According to Tolkāppiyam, these forms are poetic ugages and so one can conclude that they represent the much more ancient usage.

There is another variety of vowel cluster. Here, one has a kind of emphasis which is denoted by the short vowel corresponding to the previous long vowel. For instance the imperative mood of the verbs *ē* 'command' and *ō* 'leave of' are *ēe* and *ōo* (S. 272). Probably, there was difference in the pronunciations of the root form and the imperative form and this difference was represented by the corresponding short vowel added to the root. The emphatic particle *ō* also gets this augment of a short vowel (Tolkāppiyam collatikāram S. 261). Instead of saying that there are different short vowels as augments, one can explain them by taking one of them as basic and others as altenant forms, i.e., V1V1+V2>

V1V1V1. In the same way, *kōon* 'king' can be derived from *kō* plus *an*, instead of from *kō* plus *on* as it has been done by Tolkāppiyar (S. 180). The forms *yāam*, *piṭāam* etc. as in *yāaṅkōṭu* 'branch of Yā tree' and *piṭāaṅkōṭu* 'branch of Piṭā tree' etc., can be derived from *yā*, *piṭā* etc. plus *am*, an augment occurring after names of trees.[38] Tolkāppiyar explains that augment is *a* and *m* appears in Sandhi (S. 223, 229 and 230).

From these, we can conclude that vowel clusters existed at the time of Tolkāppiyar. Therefore, it is easy to understand Tolkāppiyar's statement that *aḷapeṭai* consists of a cluster of a long vowel and short vowel.

There are clues in Tolkāppiyam[39] to assume that Tolkāppiyar was familiar with Sanskrit grammar. Moreover, he was fully aware that vowels can be elongated to a greater length in music (S. 55). Therefore, if the Tamil *aḷapeṭai* and the Sanskrit pluta were the same for Tolkāppiyar, as conceived by the later day grammarians, he would have stated this clearly. It is the change in the language, i.e. the avoidance of vowel cluster at a later stage which made it difficult for the later day scholars like Naccinārkkiniyar to understand Tolkāppiyar's conception of *aḷepeṭai*.

38. It is to be noted here that the tree name *puḷi* 'tamarind' takes the augment *am* (S. 244).
39. Tolkāppiyam, S. 102.

Three. NUNMARAPU

3.1. *Nūṉmarapu* is the name of the first chapter in Tolkāppiyam. The terms *nūl* and *marapu* generally mean treatise and grammatical rules respectively. Iḷampūraṇar interprets *nūṉmarapu* as the principles or the postulates of phonology deseribed in *eḻuttatikāram* and hence it is clear that according to him *nūl* here refers only to *eḻuttatikāram*. He adds that this chapter deals only with individual sounds and not with their function in utterances.

Nacciṉārkkiṉiyar considers the term *nūl* as referring to the whole of Tolkāppiyam and not to *eḻuttatikāram* alone. He justifies his interpretation thus: " The names of sounds and the order of sounds are common to both *eḻuttatikāram* and *ceyyuḷiyal* (the chapter on literary composition, found in *poruḷatikāram*). But the total number of sounds is given as thirty three in *eḻuttatikāram* whereas in *ceyyuḷiyal* it is reduced to fifteen. The quantity of sounds is not always dealt with identically. The short vowels and long vowels have the same quantities in both the chapters. But *aḷapeṭai*

has no significance in *eḻuttatikāram* because it occurs only when the metre demands it. The classification of sounds is common to both *eḻuttatikāram* and *ceyyuḷiyal*. The shortening of sounds is also applicable to both. The combination of sounds, the disjuncture of sounds and clustering of sounds though stated as rightly belonging to *eḻuttatikāram* have reference to *collatikāram* (chapter on morphology) also."

Nacciṉārkkiṉiyar himself feels that his own interpretation of some of the sutras in this chapter as referring to a later chapter is far-fetched. However, he consoles himself by saying that this would be the only course possible for avoiding some difficulties that lie ahead.[1]

Civañāṉamuṉivar[2] interprets *marapu* as conventional usages and distinguishes the conventions of the common usage from those of the techinical terms used in particular sciences. *ulakamarapu* is the name that he has given for the first and *Nūṉmarapu*, according to him is the scientific terminology. Further, he points out that Tolkāppiyar has used the term *nūṉmarapu* in the beginning of his treatise only to emphasize that other terms used in later chapters should also be considered as based on *nūṉmarapu* and not on *ulakamarapu*.

It is interesting to note that both Iḷampūraṇar and Nacciṉārkkiṉiyar have stressed the word *nūl* in *nūṉmarapu* whereas Civañāṉamuṉivar has his argumets based merely on *marapu*.

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1. Nac. eḻuttu P. 37.
2. Civañāṉamuṉivar 'Tolkāppiya mutal cūttira virutti' P. 20.

Venkatarajalu Reddiyar suggests that the word *nūl* perhaps meant sounds in the age of Tolkāppiyam.[3] But it is very difficult to prove from Tolkāppiyam whether *nūl* ever meant sounds.

There is another possibility : Tolkāppiyar, probably, intended to write only on *eḻuttu* and therefore by the term *nūl* he might have meant only *eḻuttatikāram.* If that is so, *collatikāram* and *poruḷatikaram* must be later developments in his mind.

3.2. The chapter, *nūṉmarapu*, has thirty three sutras which deal with the following subjects in this order: Primary sounds (S. 1), secondary sounds (S. 2), short vowels (S. 3), long vowels (S. 4), extra lenghtening of vowels (S. 5 & 6), quantity (S. 7), list of vowels (S. 8), list of consonants (S. 9), quantity of a syllabic letters (S. 10), quantity of consonants (S. 11), quantity of secondary sounds (S. 12), quantity of shortened *m* (S. 13), difference in the written form of *p* and *m* (S. 14), the written form of consonants (S. 15), written form of syllables (S. 17), pronunciation of syllabic letters (S. 18), enumeration of stops (S. 19), enumeration of nasals (S. 20), enumeration of semi vowels (S. 21), consonantal clusters (S. 22 to 30), demonstratives (S. 31), interrogatives (S. 32) and extra lengthening of sounds in music (S. 33).

3.3. Tolkāppiyar does not include the shortening of *m* in the list of *cārpu eḻuttu* 'dependent sounds' like the later grammarians do.[4] However, Sutras 13 and 330 speak about the consonant *m* getting shortened. Nacciṉārkkiṉiyar

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3. Venkatarajalu Reddiyar, Eḻuttatikāravarāycci, P. 20.

4. Naṉṉūl. S. 60 and 96.

explains this discrepancy by stating that the above sutras refer only to the views of other authors.[5]

Sutra 14 is an enigma. Iḷampūraṇar and Naccinārkkiniyar take the sutra to mean that the written symbol for *m* is differentiated from that of *p* by an internal dot. Why should Tolkāppiyar refer to this distinction alone? For instance, *v* and *p* whose symbols are also similar should be distinguished as well. The commentator of Vīracōḻiyam speaks of *makarakkuṟukkam* 'shorterned *m*' being written with a dot or a mark above the symbol for the consonant *m*.[6] Unless. S. 14 is taken in this sense, it is very difficult to justify its position, as it immediately follows the sutra on *makarakkuṟukkam*.

3.4. There are some difficulties with reference to consonantal clusters.

Regarding the relevancy of the clusters being discussed in this chapter where only individual sounds are spoken about, there are some differences of opinion. Both Iḷampūraṇar and Naccinārkkiniyar consider the clusters with reference to formation of words out of sounds and accordingly these should not belong to this chapter. Naccinārkkiniyar states that the sutras relating to clusters explain the combination of sounds and they are to be treated as the means (*karuvi*) to *moḻimarapu*, the second chapter where word formation is discussed.[8]

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5. Nac. eḻuttu. P. 27 (S. 13).
6. Vīracōḻiyam (S. 19.) P. 17.
7. Iḷam. eḻuttu. P. 12 (S. 22) and Nac. eḻuttu. P. 31.
8. Nac. eḻuttu. P. 32 (S. 22).

Civañāṉamuṉivar justifies the inclusion of these sutras in this chapter.[9] For him, clustering is the characteristic feature of each one of the consonants with reference to one or more consonants. So the clustering is looked upon as a friendship or attraction while non-clustering as enmity or resistence.

There is also a possibility that the loose palmyra leaves of the original text got mixed up when they were being copied and some of the sutras of the second chapter were accidently included in the first. In that case it should have happenend even before Iḷampūraṇar wrote his commentary because he has stated that these sutras are part of *nūṉmarapu* itself.[10] It is to be noted that the description of clusters starts from S. 22 wherein Tolkāppiyar refers to the consonant sounds dealt with in Sutras 19, 20 and 21 as *ammūvāṟu* 'those three-six (the eighteen consonants already enumerated). In that case, the continuity of sutras 19 to 22 should be taken for granted. If the sutras from 22 onwards are not part of *nūṉmarapu*, this connection between S. 22 and the other three cannot be established.

Iḷampūraṇar raises another problem in his commentary on S. 22. As there are three kinds of *eḻuttus*, viz. vowels, consonants, and syllabic letters, nine kinds of clustering are possible. Out of these, only the clustering of a consonant with another consonant is mentioned because in other kinds of clustering the possibilities are limitless.

Naccinārkkiṉiyar wants to show that Tolkāppiyar himself provides for all these culsters without recourse to any

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9. Tolkāppiyamutalcūttiravirutti. P. 61.
10. Iḷam. eḻuttu. P. 20 (S. 48).

implied statements in the sutra. He takes a different reading of sutra and interprets it as to mean consonants clustering with same consonants and also with different consonants, and syllabic letters clustering with syllabic letters and with consonants. The clustering of vowels with syllabic letters and with consonants is to be understood from the usage of the word *teriyuṅkālai* 'if examined' found in sutra 22.[11] In his commentary on S. 30 he refers to the usage *meynilai cuṭṭiṉ* 'if the significance is taken into consideration' to infer the clustering of consonants with syllabic letters.

Pavaṇanti after describing the consonantal clusters says that there is no limit to other kinds of clusters.[12]

Iḷampūraṇar distinguishes two kinds of consonantal clusters, namely, consonant clustering with another consonant and a consonant clustering with the same consonant (i.e. gemination). Nacciṉārkkiṉiyar adds to this by saying that the first kind of cluster is discussed in several suras (S. 23 to 29) while the doubling of consonants in only one sutra (S.30). All the nasals, the semi vowels and the stops *ṭ* and *ṟ* cluster with other consonants and the stops *k*, *c*, *t* and *p* cluster only with their corresponding consonants. This statement of Naccinārkkiṉiyar reminds us of the sutra 110 in Naṉṉūl.

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11. Whenever there is an extra pharse or word in the sutra, the general paractise of the later day commentator is to give an extended meaning for the sutra other than what the author has explicitely stated in it.

12. Naṉṉūl. S. 110.

Iḷampūraṇar points out that clustering is applicable in the case of single word as well as juxtaposed words.[13] Nacciṉārkkiṉiyar contradicts Iḷampūraṇar by saying that clusters are restricted only to individual words. But, in additions to individual words, he cites *viṉaittokai* (verbal root-noun compound)and *paṇputtokai* (adjectival root-noun compound) forms also as illustrations for clusters. He justifies himself for including the two compounds by saying that they can be treated as individual terms on the basis of the sutra 482, which says that these compounds cannot be analysed as two separate units.[14]

Nacciṉārkkiṉiyar's objection to recognise clusters in the combination of two words is as follows : "Tolkāppiyar is concerned only with individual words in this chapter and deals with combination of two words in the chapter on sandhi. When two words are juxtaposed different types of sandhis are possible, viz. vowel plus vowel, consonant plus consonant and consonant plus vowel. Therefore to give illustrations in this chapter for clusters occurring in two juxtaposed words is redundant."[15]

With regard to the non-availability of examples in his time for certain clusters given in Tolkāppiyam, Nacciṉārkkiṉiyar explains that individual words in which such clusters occur might have been in existence in Tolkāppiyar's time and they should have disappeared later.[16]

Caṅkaranamacivāyar (one of the commentators of Naṉṉūl) is of the opinion that the clusters occurring in single words as

13. Iḷam. eḻuttu. P. 13 (S. 23).
14. Nac. eḻuttu. P. 32 (S. 24).
15. Ibid. 34 (S. 27).
16. Ibid. PP. 32 and 33 (S. 24 and 27).

well as in compounds can be taken into consideration.[17] He ridicules the view of considering *viṉaittokai* and *paṇputtokai* as single words as it has been done by Naccināṟkkiṉiyar, by saying that this amounts to calling a mother, a barren woman.[18]

The clusters occurring in Tamil as given in Tolkāppiyam are indicated below by numbers

	k	ṅ	c	ñ	ṭ	ṇ	t	n	p	m	y	r	l	v	ḻ	ḷ	ṟ	ṉ
k	1																	
ṅ	2	3																
c			4															
ñ			5	6							7							
ṭ	8		9		10				11									
ṇ	12		13	14	15	16			17	18	19			20				
t							21											
n							22	23			24							
p									25									
m									26	27	28			29				
y	30	31	32	33			34	35	36	37	38			39				
r	40	41	42	43			44	45	46	47	48			49				
l	50		51						52		53		54	55				
v											56			57				
ḻ	58	59	60	61			62	63	64	65	66			67				
ḷ	68		69						70		71			72		73		
ṟ	74		75						76								77	
ṉ	78		79	80					81	82	83			84			85	86

17. Naṉṉūl. commentary. P. 59. (S. 110).
18. Ibid. P. 96 (S. 152).

Illustrations :

(I refers to Iḷampūraṉar and N to Naccinārkkiniyar).

1. I & N. *kākkai* 'crow', 2. I. *teṅku* 'cocanut', N. *kaṅkaṉ* 'name of person', 3. *eṅṅakaṉam* 'what way', 4. I & N. *paccai* 'green', 5. I. *mañcu* 'cloud' N. *kañcaṉ* 'miser', 6. I & N. *maññai* 'peacock', 7. *uriñ yātu* 'what (is) sucking', 8. I & N. *kaṭka* 'to obstruct', 9. I. *kaṭ ciṟār* 'boys having eyes', N. *kaṭci* 'refuge', 10. I & N. *paṭṭai* 'stripe', 11. I & N. *kaṭpa* 'to obstruct', 12. I. *veṇ kalam* 'bell metal', N. *eṇku* 'bear', 13. I. *veṇ cāntu* 'white sandal', 14. I & N. *veṇ ñāṇ* 'white card', 15. I. *vaṇṭu* 'bee', N. *kaṇṭaṉ* 'He who has neck', 16. I & N. *maṇṇai* 'youth', 17. I. *veṇ pali* 'white rice', N. *paṇpu* 'character', 18. I. *veṇ mālai* 'white garland', N. *veṇmai* 'whiteness', 19. I. *maṇ yātu* 'which (is) sand', N. *maṇ yāṟu* 'sand river', 20. I. *maṇ valitu* 'sand (is) strong', N. *maṇ vaṭṭu* 'earthern cup', 21. I & N. *tattai* 'parrot', 22. I. *pantu* 'ball', N. *kantaṉ* 'name of a person', 23. I. *ven nōy* 'a disease', N. *ven ney* 'butter', 24. I. *porun yātu* 'what (is) comparison', 25. I. *appai* 'father (?)', N. *appu* 'father', 26. *kampu* 'stick', N. *kampaṉ* 'name of a person', 27. I. *ammi* 'stone grinder', N. *ammai* 'mother', 28. I. *tirum yātu* 'which (is) turning', 29. I. *nilam valitu* 'land is strong', 30. I. *vēy kaṭitu* 'bamboo (is) strong', N. *āyka* 'examine', 31. I. *vēy ṅaṉam* 'bamboo–?', 32. I. *vēy ciṟitu* 'bamboo (is) small', N. *ey cilai* 'bow which discharges arrow', 33. I. *vēy ñāṉṟatu* 'bamboo hung', N. *pāy ñekiḻi* 'jumping fire-brand', 34. I. *vēy tītu* 'bamboo (is) bad', N. *āytal* 'examining', 35. I. *vēy nīṇṭatu* 'bamboo (is) long', N. *āynar* 'those who examine', 37. I. *vēy māṇṭatu* 'bamboo (is) good', N. *vāymai* 'truth', 38. I. *vēy peritu*

bamboo (is) big', N. *āypavai* 'those which are examined', 38. I. *veyyar* 'those who desire', N. *ceyyāṟu* 'a river', 39. I. *vēy valitu* 'bamboo (is) strong', N. *teyvam* 'god', 40. I. *vēr kaṭitu* 'root (is) thick', N. *ārka* 'eat', 41. *vēr ṅaṉam* 'root-?', 42. I. *vēr ciṟitu* 'root (is) small', N. *vār cilai* 'well-done bow', 43. I. *vēr ñāṉṟatu* 'root hung', N. *nēr ñekiḻi* 'straight fire-brand', 44. I. *vēr tītu* 'root (is) bad', N. *ārtal* 'eating', 45. *vēr nīṇṭatu* 'root (is) long', N. *ārnar* 'those who eat', 46. I. *vēr peritu* 'root (is) big', N. *ārpavai* 'those which are eaten', 47. I. *vēr māṇṭatu* 'root (is) good', N. *nērmai* 'straight foreward-ness', 48. I. *vēr yātu* 'which (is) root', N. *pōr yāṉai* 'fighting elephant', 49. I. *vēr valitu* 'root (is) strong', N. *cērvatu* 'that which join', 50. I & N. *celka* 'go', 51. I. *cel ciṟar* 'boys who go', N. *valci* 'food', 52. I & N. *celpa* 'to go', 53. I & N. *kol yāṉai* 'killing elephant', 54. I & N. *elli* 'night', 55. I. *kol vaḷai* 'bangle', N. *celvam* 'wealth', 56. I. *tev yātu* 'what (is) enmity', 57. I. *evvī* 'my sister', N. *evvi* 'opportunity', 58. I. *vīḻ kaṭitu* 'air-root is thick', N. *āḻka* 'immerse', 59. *vīḻ ṅaṉam* 'air-root-?', 60. I. *vīḻ ciṟitu* 'air-root (is) small', N. *vāḻ cēri* 'living place', 61. I. *vīḻ ñāṉṟatu* 'air-root hung', N. *vāḻ ñeṇṭu* 'living crab', 62. I. *vīḻ tītu* 'air-root (is) bad', N. *āḻtal* 'immersing', 63. I. *vīḻ nīṇṭatu* 'air-root (is) long', N. *āḻnar* 'those who immerse', 64. I. *vīḻ peritu* 'air-root (is) big', N. *āḻpavai* 'those which are immersed', 65. I. *vīḻ māṇṭatu* 'air-root (is) good', N. *kīḻmai* 'meanness' 66. I. *vīḻ yātu* 'what (is) air-root', N. *vīḻ yāṉai* 'lying elephant' 67. I. *vīḻ valitu* 'air-root (is) strong', N. *vāḻvatu* 'that which live', 68. I & N. *koḷka* 'take', 69. I. *koḷ ciṟār* 'boys who take', N. *nīḷ ciṉai* 'long branch (of a tree)', 70. I & N. *koḷpa* 'to take', 71. I. *veḷ yāṉai* 'white elephant', N. *veḷ yāṟu* 'a

river', 72. I. *veḷ vaḷai* 'white bangle', N. *kaḷvaṉ* 'thief', 73. I. *koḷḷi* 'fire-stick', N. *kaḷḷi* 'spurge', 74. I & N. *kaṟka* 'learn', 75. I. *kaṟ ciṟār* 'boys having stone', N. *muyaṟci* 'attempt', 76. I. & N. *kaṟpa* 'to learn', 77. I & N. *koṟṟi* 'a lady', 78. I. *puṉ kaṇ* 'distress', N. *puṉku* 'a tree', 79. I & N. *puṉ cey* 'dry land', 80. I & N. *poṉ ñāṇ* 'golden string', 81. I. *poṉ peritu* 'gold (is) big', N. *aṉpu* 'kindness', 82. I. *poṉ mālai* 'golden garland', N. *vaṉmai* 'strength', 83. I. *poṉ yātu* 'what (is) gold', N. *iṉ yāḻ* 'sweet stringed instrument', 84. I. *poṉ valitu* 'gold (is) strong', N. *puṉ varaku* 'a kind of grain', 85. I. *kaṉṟu* 'calf' N. *maṉṟaṉ* 'he who is in the assembly', 86. I & N. *kaṉṉi* 'virgin'..

It is to be noted that Iḷampūraṇar cited twenty nine examples of clusters occurring in single words whereas Nacciṉārkkiṉiyar cites forty nine instances for the same. Further, Nacciṉārkkiṉiyar does not give illustrations for *ñy*, *ny*, *my*, *vy* and *mv*.

Four. CARPU ELUTTU

4.1 Tolkāppiyar distinguishes between *mutal eḻuttu* 'primary sounds' and *cārpu eḻuttu* 'secondary sounds or dependent sounds' (S. 1). As the secondary sounds can be illustrated only with reference to words in which they occur in their respective environments, they are treated by Tolkāppiyar in the beginning of the second chapter, *moḻimarapu* 'chapter on word formation' (S. 34 to 40). They are not independant phonemes but merely allophones occurring in complimentary distribution.

The secondary sounds occur not only within individual words but also in sandhi and hence the name *taṉimoḻi cārpu eḻuttu* 'secondry sounds occurring within a word' and *puṇar-moḻi cārpu eḻuttu* 'secondary sounds occurring in sandhi.'

According to Tolkāppiyar, there are three secondary sounds viz., *kuṟṟiyal ikaram*, *kuṟṟiyal ukaram* and *āytam*. *iyal* means characteristic feature. Hence, *kuṟṟiyal ikaram* and *kuṟṟiyal ukaram* mean *i* having the characteristic feature

of shortness *u* having the characteristic feature of shortness respectively. As *i* and *u* are short vowels them- selves, these sounds are treated as shorter variety of these sounds. Hereafter they will be referred to as shorter *i* and shorter *u* respectively.

4.2. S. 101 gives the articulation of these secondary sounds. This sutra says that these sounds have no individuality of their own but always depend on other sounds. The next line therein explains their articulation. Their articulation according to Iḷampūraṇar's interpretation, is same as that of the sounds on which they depend. *kāṭci* occurring in the sutra is interpreted by him as the place of articulation. But he explains that the articulation of *āytam* depends on the plosive following it even though it comes after a short vowel and it is articulated with the 'head-air'.

Naccin̲ārkkin̲iyar takes the third line alone applicable to the shorter *i* and shorter *u* and they are said to be born at the place where the consonants on which they depend are articulated. The fourth line is considered by him as applicable to *āytam*. *kāṭci* is interpreted by him as the heart or chest and he asserts that the *āytam* is articulated with the 'chest-air' or air from chest. He further adds that there are others who state that the *āytam* is articulated with the 'throat-air', and some others take it as being articulated with the 'head-air'.[1]

It is noteworthy that the latter grammarians[2] have accepted Iḷampūraṇar's view in this regard. Pavaṇanti follows Iḷampūraṇar. But, instead of speaking of the 'head-

1. For explanation of head–air, chest–air etc, see chapter six '*pir̲appiyal*'.

2. Nan̲n̲ūl. S. 87 and Ilakkaṇaviḷakkam. S. 13.

air' he speaks of the head as the place of articulation. Thus the whole issue becomes a riddle.

All are agreed that the shorter *i* and shorter *u* are articulated at the place where the preceding consonants are articulated. How can the same vowel be articulated at different places when different consonants precede it? This can perhaps be interpreted as shorter *i* and shorter *u* are vowel releases after the consonants.[3] After *m* and *y* the vowel release was recognized as shorter *i* and in other places as shorter *u*. Therefore these releases are thus articulatad in the same place as the preceding sound is articulated.

4.3. The short and shorter *u* are in complementary distribution. The short *u* occurs in the final position in the words of (C)VCV pattern whereas the shorter *u* occurs in the word final positions elsewhere after plosive only.

The shorter *u* is divided into six classes depending on the last sound of the preceding syllable.[4] The last syllable always will be either *ku, cu, ṭu, tu, pu* or *ṟu*. The names given are, (1) *neṭil toṭar kuṟṟiyal ukaram* where in disyllabic words the preceding syllable is long and open (e.g. *nāṭu* 'country'), (2) *uyirt–toṭar–kuṟṟiyal ukaram* where the preceding syllable is open (e. g. *varaku* 'common millat'), (3) *iṭai-t-toṭar-kuṟṟiyal ukaram* where the preceding syllable ends in any of the semi vowels (e.g. *teḷku* 'an insect'), (4) *āyta–t–toṭar–kuṟṟiyal ukaram* where the preceding syllable ends in *āytam* (e.g. *e ∴ ku* 'steel'), (5) *vaṉ-ṟoṭar–kuṟṟiyal ukaram* where the preceding syllable ends in a plosive (e.g. *kokku* 'crane') and

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3. T. P. Meenakshisundaran 'A history of Tamil language' P. 67.

4. Tolkāppiyam. S. 407.

men̲-ṟoṭar-kuṟṟiyalukaram where the preceding syllable ends in a nasal (e.g. *kurañku* 'monkey').

In S.407 Tolkāppiyar says that even in cases where the final syllable is preceded by consonant cluster (the first consonant always being any one of the following sound, *y*, *r* or *ḻ*, e.g. *irkku* ' rib of a palm leaf', *moympu* 'strength' etc.), the consonant immediately preceding the final syllable alone is to be taken for the above classification.

Naccin̲ārkkin̲iyar refers to another school of thought according to which the shorter *u* is divided into seven categories on the basis of preceding syllabic pattern.[5] Those are (1) long open monosyllable, (2) two short open syllables, (3) short and long open syllables, (4) long closed monosyllable, (5) two short closed syllables, (6) short and long closed syllables and (7) short closed syllable. However, he refutes this classification as words like *piṇṇākku* 'oil cake', *cuṇṇāmpu* 'lime' etc will not come under any one of the above classifications.

According to the reading of the sutra 409 accepted by Iḷampūraṇar, the *u* occurs as a shorter *u* only when it is utterance-final and not merely word-final. If other words follow the shorter *u*, it becomes the ordinary short *u*. Tolkāppiyar, however, states in sutra 37 that in word combinations also the shorter *u* occurs. Iḷampūraṇar takes the sutra 410 as example for the above. That is, in *van̲ṟoṭar kuṟṟiyalukaram* followed by a word beginning with a plosive only the shorter *u* occurs in sandhi. For instance *kokku-c-ciṟitu* 'crane is small' *u* in *kokku* is shorter *u* and not else-

5. Nac. eḻuttu P. 228 (S. 406). This kind of classification is found in Yāpparañkalakkārikai-urai P. 13.

where. In this way, one gets two kinds of shorter *u* occurring (1) in the utterance final position and (2) in sandhi.

This is not the interpretation given by Naccinārkkiniyar[6] and later authors[7]. During their time the shorter *u* occurs as such both in word final and in utterance final positions. Therefore, Naccinārkkiniyar adopted a different reading of S. 409, *nilaiyum* 'will stand' for *niṟaiyum* 'will be full'. Hence the sutra means that shorter *u* can occur even in sandhi. The next sutra is interpreted by Naccinārkkiniyar as to mean that in *vaṉṟoṭar kuṟṟiyalukaram* followed by the word beginning with plosive the shorter *u* becomes still shorter. The later day grammarians called this further shortening of shorter *u* as *kuṟṟiyalukarak kuṟukkam* 'shortening of shorter *u*[8]'.

Tolkāppiyar's general method of description of all the dependent sounds seems to be against this kind of interpretations. With reference to every dependent sound, he speaks of their occurrence in individual words and then in combination of words. In all those cases, there is no question of further shortening. Pēraciriyar in his commentary on *poruḷatikāram* (of Tolkāppiyam) also accepts the reading of Iḷampūraṇar.[9] Therefore, Naccinārkkiniyar's commentary has to be explained in terms of the change in Tamil phonology which has occurred within that period. So, his commentary, however, does not represent the language at the time of Tolkāppiyar.

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6. Nac. eḻuttu. P. 229 (S. 408).
7. Civañāṉamuṉivar 'Tolkāppiya mutalcūttiravirutti' P.31
8. K. Vellaivaranan 'Tolkāppiyam Naṉṉūl eḻuttatikāram' P. 72.
9. Pēraciriyar. 'Poruḷatikāra urai' P. 244.

There is another change which has taken place by the time of Naccinārkkiniyar. It has been pointed out that the shorter *u* was an allophone of the phoneme, short *u*. But, Naccinārkkiniyar refers to the shorter *u* and short *u* contrasting in the same environment in words like *kātu*, *kaṭṭu*, *murukku* and *teruṭṭu*.[10] If the *u* is short, these words are in the imperative mood; *kātu* 'Murder', *kaṭṭu* 'bind', *murukku* 'twist', *teruṭṭu* 'threaten'; if the *u* is shorter, those words are nouns; *kātu* 'kill', *kaṭṭu* 'binding', *murukku* 'twisting', *teruṭṭu* 'threatning'. Therefore, short *u* and shorter *u* became phonemic by his time.

Naccinārkkiniyar refers to a distinction between short *u* and shorter *u* in sandhi[11]; that is, when a vowel follows the short *u*, there will be a glide occurring; when shorter *u* is followed by a vowel, it will be lost and the following vowel will form a syllable with the plosive preceding the *u*.

Both Iḷampūraṇar[12] and Naccinārkkiniyar[13] point out another difference in pronunciation, as short *u* being pronounced with lip rounding and shorter *u* with lip unrounding. As already stated, Tolkāppiyar has stated only the place of articulation and the difference in quantity. Whatever might have been the state of affairs in Tolkāppiyar's age, by the time of Iḷampūraṇar the shorter *u* was pronounced as an unrounded *u* and this state of affairs continues to the present day.

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10. Nac. eḻuttu. P. 56 (S. 68).
11. Ibid. P. 39 (S. 36).
12. Iḷam. eḻuttu. P. 26. (S. 68).
13. Nac. eḻuttu. P. 56 (S. 68).

According to Naccinārkkiniyar, the final *u* in *perumuracu* 'big drum', *tirumuracu* 'drum used in temple' are short *u* occurring in two words. In words *paracu* 'praise', *inku* 'stay' and *ētu* 'reason', *u* is short because they are Sanskrit words, and the final *u* in *tarukku* 'be proud' *aṇukku* 'be near' is short because these are verbs.[14] So, it is clear that Naccinārkkiniyar considers that shorter *u* occurs only in nouns which are native individual words.

S. 67 says that shorter *u* occurs initially (i.e. in the initial syllable) in the kinship term *nuntai* 'your father', and S. 68 speaks of the short *u* occurring in the same word without change of meaning. Therefore, it is a free variation of short *u* and shorter *u*.

This free variation of short *u* and shorter *u* in *nuntai* is useful to know the origin of the pronunciation of shorter *u* in the word *nuntai*. The original from of the vowel in the second person singular *nin̲* 'your' and also in the second nominative plural *nīyir* 'you (pl)' is *i*. But in the oblique form of the plural is *num*. The consonant *m* succeeding *i* seems to labialise that vowel into *u*. To start with, it was not pronounced as short *u* but perhaps as a centralised *i*.[15] Due to the force of written from, the *i* of the initial syllable in that word might have come to be pronounced as a completely rounded *u* in later times. But, in the age of Tolkāppiyar, the later tendency was just beginning to be felt, and so he has referred to two kinds of pronunciations as free variation.

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14. Ibid. P. 39 (S. 36).

15. T. P. Meenakshisundaran 'The Tamil Sounds' P. 101.

4.4. The shorter *i* comes as an allophone of the shorter *u* whenever followed by *y*. *y*, being the semi vowel related to the front vowel *i* colours the preceding *u* and centralises it. Therefore, the shorter *i* is only an allophone in complementry distribution wiꞇh either shorter *u* or short *i*. *nāṭu* 'country' plus *yātu* 'which' becames *nāṭiyātu*. This is a case of shorter *i* occurring in sandhi.

Certain words which seem to be in the imperative mood consist of the root plus *miyā* which appears as an empty morph in the age of Tolkāppiyar (S. 759). *i* occurring here after *m* becomes shorter *i* according to S. 34 Here the shorter *i* is more or less like a release of the consonant *m*.[16] This is the case of shorter *i* occurring in individual word.

4.5. *Āytam* (ஃ) occurs only in the following context: (C)V1 ஃ PV where C is any consonant, V1 any short vowel, V any vowel and P any plosive. (S. 38).

The *āytam* in the utterance *kaஃṟītu* 'stone (is) bad' is a sandhi product of *kal*+*tītu*. Here the sandhi process is explained as *meypiṟitātal* 'change of one consonant to another.

The written symbol of the consonant is always having a *puḷḷi* 'dot' above it and therefore the consonants themselves came to be called as *puḷḷi*. In S. 38, *āytam* is referred to as *āytappuḷḷi* and therefore, Iḷampūraṇar takes *āytam* as a consonant. Further he says that *āytam* does not depend upon any other sound since it is not a vowel (of the other *cārpu eluttu* type). The vowel occurring after plosive is, in

16. T. P. Meenakshisundaran. 'A History of Tamil Language' P. 68.

most cases, the shorter *u* though in some cases other vowels also occur as in *ve°°kāmai* 'not desiring'. Naccinārkkiniyar talks only about vowel followed by plosive and in this respest he agrees with Iḷampūraṇar.

Āytam can occur as a result of sandhi according to S.39, Iḷampūraṇar states that the enviornment of *āytam* occurring as a sandhi product is the same as that of its occurrence in individual words. Naccinārkkiniyar interprets to mean that *āytam* occurring as sandhi product has half matra.[17] This he does perhaps because of the following reason: Since he has already stated that the shorter *u* occurring before another word beginning with a plosive suffers further diminution in quantity, he has to say that in the case of *āytam* also there is no further diminution in quantity.

The *āytam* occurring in sandhi is referred to in S. 369, 399 and 379.

When the closed short monosyllabic words ending in *l* are followed by another word beginning with *t*, there are some sandhi changes. First of all, the *t* of the succeeding word becomes *ṟ* if preceded by *l* (S. 150) and *ṭ* if preceded by *ḷ* (S. 151). Then the final *l* and *ḷ* become *ṟ* (S. 368) and *ṭ* (S. 398) respectively. But instead of this, *l* and *ḷ* may become *āytam* in non-case relation sandhi according to S. 369 and 399. In S. 369 Tolkāppiyar says that *l* becoming *āytam* is not prohibited by scholars and in S. 399 he says that *ḷ* becoming *āytam* is not barred either. *kaṟṟītu* (*kal*+*tītu*) 'the stone

17. The word *icaimai* occurring in the sutra is taken in the sense of the sound of *āytam* by Iḷampūraṇar and in the sense of half mātra assigned to *āytam* by Naccinārkkiniyar.

(is) bad' alternates with *ka°°ṟītu* and *muṭṭitu* (*muḷ+tītu*) 'the thorn (is) bad' with *mu°°ṭītu.* The way in which Tolkāppiyar is stating the rules seems to suggest that the appearance of *āytam* is rare. A study of the history of Tamil language reveals the fact that it was an old usage which was slowly going out of currency after the time of Tolkāppiyar.[18]

When the *v* ending closed monosyllabic words are foll-owed by those beginning with plosives, the *v* becomes *āytam* in non-case relation sandhi (S. 379). For instance, *av* 'they (neuter)' plus *kaṭiya* 'difficult' become *a°°kaṭiya.*

It can be presumed, according to Tolkāppiyar that in *ka°°ṟītu* and *mu°°ṭītu* the *°°ṟ* and *°°ṭ* are alternants of *ṟṟ* and *ṭṭ* respectively. In that case, *°°P* (P is any plosive) can be taken to be alternating with PP (geminated stop) even though for *a°°kaṭiya,* there is no attested form **akkaṭiya.*

The question of the phonetic value of the *āytam* still remains to be answered. It has already been stated that according to Tolkāppiyar the *āytam* is articulated at the place where the succeeding plosive is articulated.

In modern usage, the *āytam* in *e°°ku* 'steel' (exxu) is pronounced as a velar fricative. When words like *ka°°ṟītu* and *mu°°ṭītu* are read now, the *āytam* in these words are pro-nounced like a pharyngal fricative. Probably because of this variation, the *āytam* in these clusters, *°°ṭ* and *°°ṟ* are spoken of by later grammarians as belonging to a different variety, having further diminution of quantity.[19] The author of Ilakkaṇaviḷakkam does not admit this variety.

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18. T. P Meenakshisundaran. Op. cit. P. 89.

19. Naṉṉūl S. 97. Pavaṇanti assigns a quarter mātra for this variety S. 99

As has already been pointed out, Naccinārkkiniyar asserts that the *āytam* as a sandhi product has half a mātra i. e. without suffering any diminution as stated by Pavananti. He further states that the *āytam* is articulated with the air escaping through the chest or lungs. If that is so, it must be a mere breath, a *h* sound.

The name itself throws some light on the phonetic value of *āytam*. As some suggest, the term is not a variant form of Sanskrit *āśṛta*[20] (where the *ṛ* disappears and the *ś* becomes *y*) because the idea of *āśṛta* 'that which dependent' is very well expressed by the other term *cārpu* 'dependent'. Tolkāppiyar himself gives the name *nalipu* 'softening' to *āytam* in *Ceyyuḷiyal*[21] (S. 1479). One can analyse the word into *āy* (The meaning of the root is 'gradually fainting away' according to S. 813) plus *tu* and *am.*[22] This name, therefore, suggests a sound which is a weakened form of the neighbouring plosive. We can call it the fricative corresponding to the plosive. This pronunciation as already noted is in current usage at least with reference to the word *e°°ku.* We can consider the *āytam* plus plosive as the geminated fricative occurring as an allophone of geminated plosive.[23]

There is also another opinion stating that *āytam* is only a symbol to indicate that the following plosive is spirantized[24]

20. Venkatarajalu Reddiar 'Eḻuttatikāravārāycci' P. 14.

21. Tolkāppiyar uses the term *nalipu vaṇṇam* 'softening rhythm when the *āytam* is predominant.

22. T. P. Meenakshisundaran, Op. cit. P. 72 and K. Vellaivaranan 'Tolkāppiyam – Nannūl eḻuttatikāram' Pp. 26–31.

23. T. P. Meenakshisundaran Op. cit. 72.

24. Yāpparuṅkalavirutti. P. 39 (S. 3).

But, in cases like *āytat-t-toṭar-k-kruṟṟiyal ukaram* 'shorter *u* preceded by *āytam*', the final *u* cannot be taken as a shorter *u* since shorter *u* can occur only if the plosive is geminated. This also strengthens our view that *āytam* followed by a plosive is geminated fricative which is represented by the *āytam* and plosive.

In S. 422, Tolkāppiyar speaks of the word *aஃtu* 'that (thing)' as beginning with a demonstrative sound and ending with the *āytam*. The final vowel here is shorter *u* which is only a release as already stated and the *āytam* followed by the plosive is to be taken as a single unit. Only in this sense the sutra will have the meaning as stipulated by Tolkāppiyar

Tolkāppiyar, in S. 40 speaks of certain onomatopoetic words which, in pronunciation may seem to have lengthened *āytam* but he proceeds to say that these should not be represented in writing with two successive symbols for *āytam*s. Iḷampūraṇar gives *kaஃṟu* 'darkness' and *cuஃṟu* a 'noise pro duced by the movement of the palmyra leaves' as examples for these forms. Probably during Tolkāppiyar's time the *āytam* in such words might have been pronounced as lengthened sounds but still they were not represented by more than one *āytam* symbol. The *āytam* was never lengthened because it was to be considered as a unit along with the following plosive.

The tendency to treat *āytam* as a separate sound and to write down more than one *āytam* symbol to represent lengthening probably developed later, in spite of Tolkāppiyar's rule. The *āytam* gradually came to be pronounced as voiced consonant and accordingly like other consonants it had *aḷapeṭai* 'extra lengthening' pronunciation also.

The authors of Avinayam[25] and Naṉṉūl[26] admit the *āyta aḷapeṭai* 'extra lengthening of *āytam*' and the later has included it under *oṟṟaḷapeṭai* 'consonantal *aḷapeṭai*'.

Influenced probably by the above mentioned development of *āytam*, Nacciṉārkkiṉiyar gives an entirely different interpretation for S. 40. He says that Tolkāppiyar is speaking only of *āyta aḷapeṭai* in the above sutra. He interprets the sutra in such a way as to include all cases of *āyta aḷapeṭai* (not only onomatopoetic words but also all other words as well). He also treats *āyta aḷapeṭai* as behaving like consonantal *aḷapeṭai*.

The whole interpretation looks so strange and artificial. Though one may reject this interpretation of Nacciṉārkkiṉiyar, it is still useful in giving us an insight into the development of *āytam* which has taken place between Tolkāppiyar's time and Nacciṉārkkiṉiyar's time.

Venkatarajulu Reddiar objects to the interpretation of Iḷampūraṇar also.[27] But his own interpretation is very vague. He seems to suggest that the onomatopoetic word, where the *āytam* is patent enough, should be written with a symbol, other than *āytam*. It is difficult to understand what he means here. He goes on suggesting that the *āytam* should be symbolised only when the *āytam* sound is shortened and not elsewhere. He, however, concludes by admitting that the

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25. Avinayam is written by Avinayaṉār but the whole text is not available except a few sutras quoted in Yāpparuṅkalavirutti and the commentary on Yāpparuṅkalakkārikai and Mayilainātar's commentary on Naṉṉūl.

26. Naṉṉūl S. 91.

27. Venkatarajulu Reddiar 'Eḻuttatikāravārāycci' P.39 ff.

sutra is an enigma requiring further elucidation. But, as it is, if one understands the history of *āytam*, Iḷampūraṇar's interpretation is more acceptable as far as the nature of *āytam* at the time of Tolkāppiyam is concerned. As already stated *āytam* came to be pronounced as voiced *h* after Tolkāppiyar's time and began to occur as an *aḷapeṭai*. In such a case, the sound will have to be classed with the nasals and vowels which are released through the throat (*miṭaṟṟu vaḷi*). In his commentary on S. 101, Naccinārkkiniyar states that there were people who assigned *miṭaṟṟu vaḷi* 'throat air' to *āytam*. Hence, Naccinārkkiniyar's interpretation is to be taken as to represent the later stage of the language and not the language of Tolkāppiyar's time.

Five. MOLIMARAPU

5.1. *Moḻi marapu* is the second chapter in *eḻuttatikāram*. Both the commentators say that this chapter discusses the patterns of word formations. Iḷampūraṇar further states that sounds occurring as parts of a word (and not as occurring independently) are discussed here.

5.2. The first seven sutras (33 to 40) of this chapter deals with dependent sounds. They have already been discussed in the last chapter of this treatise. The inclusion of dependent sounds in *moḻimarapu* by Tolkāppiyar is because that they do not have independent existence and also because their existence can be explained only with reference to their occurrence in words. The next two sutras (41 and 42) are about vowel clusters and they have been dealt with in Chapter three (P. 30. ff).

5.3. In S. 43, Tolkāppiyar states that all the long vowels standing by themselves as long syllables can occur as seven different words. Both the commentators take this

statement as common to *uyir* 'vowel' and *uyir mey* 'syllabic letter'. All the short vowels standing themselves individually do not occur as words in their free forms (S. 44). Iḷampūraṉar states that this statement is also common to *uyir* and *uyir mey.* The demonstratives *a* 'that', *i* 'this' and *u* 'in between' and the interrogative *e* 'where' are not words but only particles and thus short vowels do not occur as words. But Nacciṉārk-kiṉiyar states that short vowels together with certain consonants can be independent words. For instance, *tu* 'eat', and *no* 'suffer' etc. The demonstratives and the interrogative denote meaning only by depending upon nouns.

According to the above sutras (43 and 44), the structure of the monosyllabic words are of the canonical pattern VV, CVV or CV.

5.4. The classification of words on the basis of *eḻuttu* is dealt with in S. 45. Tolkāppiyar divides the words into monosyllabic, disyllabic and polysyllabic. The majority of polysyllabic words are trisyllabic and some contain more than three.

The question arises what is meant by *eḻuttu* here. The term is ambiguous because Tolkāppiyar speaks of *uyirmey* 'syllabic letter' also as *eḻuttu* (S. 10) though it is a combination of sounds and is represented in writing by one letter. Elsewhere *eḻuttu* means one individual sound (S. 1). Tolkāppiyar also considers *uyirmey* as two different sounds when considering their pronunciation (S. 16).

Iḷampūraṉar and Nacciṉārkkiṉiyar agree that when Tolkāppiyar speaks of long vowels forming by themselves into words (S. 43), Tolkāppiyar speaks not only of the long

vowels but also of the long *uyirmey*. But Iḷampūraṇar seems to take *eḻuttu* here (S. 45) only in the sense of the letter form and Naccinārkkiniyar in the sense of syllable. Naccinārkkiniyar further states that the consonants and the shorter *u* should not be taken into account when counting the syllable of a word. So, according to him, *ā* 'cow', *kā* 'protect' are monosyllabic words, *maṇi* 'bell' *varaku* 'Common millet' '*korran* 'name of a person' are disyllabic words, *kuravu* 'Bottle flower' *aravu* 'snake' trisyllabic words, *kaṇaviri* 'Red Oleander' is four syllabic word, *akattiyanār* 'name of a person' is five syllabic word etc. Further he explains that Tolkāppiyar calls the consonants also *eḻuttu* in S. 1 because he is describing *eḻuttu* in *nūnmarapu* as individual sounds per se and in *moḻimarapu* as an organic part of a word, that is, in terms of syllabic structure. His arguments against taking *eḻuttu* as letter are as follows: As per the sutra 44 and 3 of *Ceyyuḷiyal*, Tolkāppiyar prohibits that the consonants and shorter *u* should not be counted in metre and should not be taken into consideration in metrical syllabifications. Since the last two sutras, 43 and 44 are about long and short vowels forming syllables, here, in S. 45, the same long and short vowels can alone be taken and not consonants.[1]

It is to be noted that Naccinārkkiniyar's interpretation is not accepted by later day scholars,[2] It is not clear what

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1. Naccinārkkiniyar emphasises the same idea even in the commentary on S. 53.

2. Devanayapavanar (Ed) Nac. eḻuttu. P. 44 foot-note, Venkatarajulu Reddiar, eḻuttatikāravārāycci, P. 47, and K. Vellaivaranan, 'Tolkāppiyam-Nannūl eḻuttatikāram'. P. 81.

useful purpose is served in counting the graphemes, because if the same word is written either in a different way or different script, the number of graphmes will differ.

The question arises how Tolkāppiyar comes to denote consonant also by the term *eḻuttu* as he does in S. 1. As already noted, Naccinārkkiniyar tries to differentiate between the two uses of the term. Even though Tolkāppiyar holds that the non-vowels are not counted in poetry, he counts the shorter *u* and the consonants in S. 406 where the shorter *u* of (C) VVCu type (*neṭil toṭar kuṟṟiyalukaram*) is referred to as *īreḻuttu oru moḻi* 'words of two letters' and (C) VC (C) Cu type (other kinds of *kuṟṟiyal ukaram*) as *toṭar moḻi* which is taken as polysyllable. In this sutra 406, Naccinārkkiniyar takes consonants and shorter *u* also as syllabic units following Tolkāppiyar.

As for Naccinārkkiniyar's view of omitting the shorter *u* in the syllable, there is another difficulty. The shorter *u* cannot be rejected like consonants because of two reasons : (1) The shorter *u* becomes short *u* when other words beginning with the consonants follow according to Tolkāppiyar (S. 408); and (2) Tolkāppiyar provides two further categories of the metrical unit, *nērpu* and *niraipu*, when the two units, *nēr* and *nirai* are followed by a plosive and a shorter *u* and it shows that shorter *u* enters into syllabic structure.

The idea of bringing syllabic structure instead of graphemes must have been an after-thought to Naccinārk-kiniyar himself and so he has not corrected his commentaries

on other sutras in accordance with his view expressed in S.45.[3]

5.5. S. 46 states that consonants will function with an addition of *a*.

The next sutra, 47, deals, according to Iḷampūraṇar with consonantal clusters which are not discussed by Tolkāppiyar in *nūṉmarapu.* He gives the following illustration: *valleḻuttu iyaiyiṉ ṭakāramākum* (S. 303) 'If plosive comes it will become ṭ'. Here *ṭakāram* 'letter *ṭ*' functions as a word beginning with *ṭ*, but normally Tamil does not allow a word beginning with *ṭ*. The sutra permits such kinds of exceptions in the language. Although Iḷampūraṇar says that the sutra is referring to consonantal clusters, the illustration he has given, does not refer to cluster. So, *meynilaimayakkam* found in the sutra can however be taken to mean the disturbance in

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3. Venkatarajulu Reddiar has pointed out (eḻuttatikāra-vārāycci, P. 48) that Nacciṉārkkiṉiyar counts the consonants also as *eḻuttu* under S. 145. As generally accepted, his commentary except in cases where he has anything original to offer is a copy of Iḷampūraṇar's commetary. There are one or two sentences which are not found in Iḷampūraṇar's commentary which are therefore Nacciṉārkkiṉiyar's own additions. Therefore, wherever he thought that he has anything original to contribute, he altered the commentary of Iḷampūraṇar whilst in other places, he left the old commentary as it was. In view of this, the suggestion that he did not revise his commentary seems to be gaining strength.

the nature (i. e. distribution) of consonants.[4] and not as *mey mayakkanilai* 'the nature of consonantal cluster' as has been done by Iḷampūraṇar.

Iḷampūraṇar, answering the doubt about the propriety of this sutra having been included in *moḻimarapu* instead of *nūṉmarapu*, states that these exceptional uses are found in the language and that is the reason for the inclusion of such references in this context.

Nacciṉārkkiṉiyar, however, does not see the propriety of this sutra occurring in this place and so he interprets the sutra to mean that the syllabic sound consisting of a consonant and a vowel is referred to in terms of the consonant only. He quotes S. 296, 342, and 21 to substantiate his view. But these sutras (S. 296 and 342) do not justify his interpretation because in those places these terms refer only to consonants in the treatement of sandhi. In addition to this Tolkāppiyar in S. 103 does not refer to syllabic letter but only to consonants and vowels while discussing about sandhi.

5.6. S. 48 deals with the coming together of three consonants. The sutra states that "*y*, *r* or *ḻ* will join with *k*, *c*, *t*, *p*, *ṅ*, *ñ*, *n* or *m* to form *īroṟṟu* 'two consonants'. Both the commentaors take this cluster as *īroṟṟu uṭanilai*; i.e. gemi-

4. Nacciṉārkkiṉiyar gives an illustration as shown by those who interprets the sutra to mean the consonatal clusters. According to him *lḷ* cluster is referred to S. 24 which says *avaṟṟuḷlaḷakāṉ* 'of these *la* and *ḷa*'. This is same as Iḷampūraṇar's interpretation but the illustration is different. However even this illustration is not about consonantal cluster.

nation of consonants which however should be taken as either the geminated stops or the homorganic nasal plus stop joining with any of the above mentioned three semi vowels.

Iḷampūraṇar raises the question why this is not discussed in *nū_nmarapu* where clusters are defined. His answer is that there, the sounds are treated from the point of view of differentiation (*vēr̲r̲umai nayam*) whilst they are treated from the point of view of unity (*or̲r̲umai nayam*) in *moḻimarapu.* This distinction does not seem to be very clear. Iḷampūraṇar probably means that in the two consonant clusters the first goes with the preceding syllable and the second consonant with succeeding syllable where in the case of three consonantal cluster, the first syllable itself will have a two consonant cluster followed by another consonant which is part of the next syllable.

There is difficulty however, in finding examples. Iḷampūraṇar gives examples for the consonantal clusters, which are all compounds. Naccin̲ārkkin̲iyār objects to this because the occurrences of these clusters in compounds can be learned from the sutras on sandhi (e.g. S. 357, 360, 383 etc.) where the plosives when followed by *y*, *r* or *ḻ* get doubled or get the homorganic nasals before them. Therefore, such sandhi sutras in view of this sutra become redundant.

Naccin̲ārkkin̲iyār is able to show illustrations of single words for *y*, *r*, or *ḻ* clustering with four geminated plosives, and of compounds (especially *vin̲aittokai* and *paṇputtokai*) for *y* and *r* clustering with homorganic nasal and stop. For *ḻ* clustering with *nt*, he shows *vāḻntan̲am* 'we lived' and says that it is a usage of his time and for other clusters he asks the readers to find out if they are used in their time.

Naccinārkkiniyār also states that these clusters can occur not only when they are preceded by long vowels but also when preceded by polysyllables.

Whatever might be our opinion about Naccinārkkiniyar's views about the propriety of showing compounds as examples for clusters in *nūnmarapu*, in this chapter on *moḻimarapu* which deals with the formation of single words, he is right in insisting on showing only individual words. In that case, one must avoid also all sorts of compounds including *vinaittokai* and *paṇputtokai.* Venakatarajulu Reddiar also emphasises this point.[5]

Venkatarajulu Reddiar however takes objection to words as illustrated by Naccinārkkiniyar where the geminated stops come after *y*, *r* or *ḻ*. According to him, it is not necessary to show such examples as there is no word in Tamil having geminated nasals after *y*, *r* or *ḻ*[6], He proceeds to say that the question of gemination does not arise here, but only two consonants coming together after those semi vowels. He however interprets the sutra as to mean that after *y*, *r* or *ḻ*, the plosives *k*, *c*, *t* and *p* will occur with their homorganic nasals coming before them. Even for such clusters, he is able to give only five out of twelve examples

	ṅk	*ñc*	*nt*	*mp*
y	—	*tēyñcatu*	*mēyntatu*	*moympu*
r		—	*cērntatu*	—
ḻ	—	—	*vāḻntatu*	—

5. Venkatarajulu Reddiar. op. cit. p. 50.
6. Ibid.

5.7. There is one other characteristic feature of the Tamil language. *r* and *ḻ* cannot precede a short vowel according to S.49. Both the commentators say that if it happens, then it should necessarily be followed by a vowel. There is an alternant form *aru* and not *ar* for *ār* 'enjoy' when the initial long vowel is shortened[7]. When the foreign words like *karp-pūra* 'camphor' is borrowed into Tamil, it becomes *karup-pūram*[8] because of this syllabic pattern.

Both the commentators further point out that such restriction is only in the initial syllable and not in the middle of the word and there is no such restriction for *y*.

It is interesting to note that this sutra is taken to refer to the restriction of cluster of vowel and consonant by Iḷampūraṇar and to the restriction of cluster of syllabic letter and consonant by Naccinārkkiniyar.

The next sutra (S. 50) as interpreted by Iḷampūraṇar states that since the shortness and length of vowels are understood only with reference to quantity, polysyllabic words ending in *r* and *ḻ* can be taken as equal in quantity to long monosyllabic words ending in *r* and *ḻ*. *pukar* 'fault' and *pukaḻ* 'fame' which are polysyllabic words according to Iḷampūraṇar are hence equal in quantity to *tār* 'garland' and *tāḻ* 'stay'. Iḷampūraṇar points out that this rule applies not only to *r* and *ḻ* but to all other consonants as well. So, he extends the sandhi rule of the disappearance of final consonant before long vowel (S. 160) to polysyllabic words also. Following Iḷampūraṇar, Civañāṉamuṉivar explains the loss of final *l* in *mutal* occurring before *ṉakara iṟuvāy* in the first sutra of Tolkāppiyam[9].

7. Aiṅkuṟunūṟu. 70.1.
8. Cilappatikāram. 14.109.
9. Civañāṉamuṉivar 'Tolkāppiyamutalcūttiravirutti' P.50

Naccinārkkiniyar objects to this interpretation on the following grounds that two short syllables can never be thus equated to one long syllable and the short disyllables are treated as *niraiyacai* whereas the long monosyllable as *nēracai* in prosody. But, here he is not understanding Iḷampūraṇar rightly. Iḷampūraṇar has not stated that they are equal but only emphasises that their behaviour (as in sandhi) is similar.

Naccinārkkiniyar gives a different meaning to this sutra which is not easy to follow. He states that the shortness and length of sounds are measured by the ear and in words where number of short syllables precede a long syllable, the same will get more than its usual quantity.

The necessity for this interpretation by Naccinārkkiniyar is again due to the change in the pronunciation which had occurred in the language between Tolkāppiyar and Naccinārkkiniyar. *Aḷapeṭai* was not a vowel cluster of a long vowel and a short vowel but only a long vowel having extra length at the time of Naccinārkkiniyar. It has been pointed out that even by the time of Yāpparuṅkalam and its commentary *aḷapeṭai* has become merely a long vowel[10] (Supra P. 28) and so the short vowel occurring in the written form of the *aḷapeṭai* was not taken into consideration for the purpose of metre. This, first, started as an exception.[11] Then the long vowel becomes longer so as to have three mātras and was pronounced as an indivisible sound.

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10. Yāpparuṅkalavirutti P. 42

11. It is to be noted that there are only two instances in Tirukkuṟaḷ (1194 and 425) where the short vowel occurring as the second member of the *aḷepāṭai* has to be omitted for the purpose of the metre, Kumari R. Paramesvari ' Language of Tirukkuṟaḷ' - An unpublished thesis submitted to Annamalai University, 1961, P. 17ff.

Naccinārkkiniyar, probably thinking that this kind of pronunciation was prevalent even during the time of Tolkāppiyar himself, wants to find some word somewhere in Tolkāppiyam to emphasise the fact of the *aḷapeṭai* being only an extra long vowel and therefore he tries a curious interpretation to this sutra. This sutra, according to him, refer to *Ceyyuḷiyal* but he states that it is mentioned here only to inform us that long vowel can have more than two mātras. He proceeds to explain that *oṟṟaḷapeṭai* 'consonantal *aḷapeṭai*' occurring after short syllable can have one mātra.

According to both the commentators, S. 51 is about *iroṟṟu uṭanilai* 'two consonantal clusters' found in poetry. *pōlum*' be similar' which occurs at the end of the metrical feet assumes the alternate form *pōṉm*.[12] Here, there is a cluster of two consonants, *ṉ* and *m*.

S. 52 states that *m* before *ṉ* will be shortened. Both the commentators refer to S. 13 which states that *m* is further reduced in certain contexts. *araiyaḷapu kuṟukal* found in S. 13 is taken by Iḷampūraṇar as to mean that *m* will suffer a diminution in its assigned quantity of half mātra and so he says that this shortened *m* will have one fourth of a mātra.

Interpreting this sutra in accordance with the general pattern of description of *cārpu eḻuttu* 'dependent sound', Naccinārkkiniyar states that the shortened *m* also occurs in individual words as in *pōṉm* and also in sandhi as *varum-vaḷavaṉ* as contemplated in S. 330.[13]

Tolkāppiyar, quoting the authority of scholars, problably predecessors, states in S. 53 that there will not be any

12. Kalittokai, 103. and Paripāṭal, 10.55.
13. Nac. euḷttu. P. 27 (S. 13).

difference in sounds if they are separately pronounced or if they are pronounced as occurring in words. Iḷampūraṇar gives the same inpterpretation as above for this sutra and this view has generally been accepted by most of the later-day scholars[14].

Naccinārkkiniyar, differing from the above interpretation, states that this meaning will be a repetition as earlier sutras refer to it. Probably, he means that there is no room for any doubt about the difference in pronunciation of sounds occurring individually as well as those occurring in words. So, he gives different interpretation to this sutra. In poetry, the consonants and shorter *u* are not taken into consideration while counting the metrical unit but when these sounds occur in individual words they also help in showing the meaning. (*ā* 'cow' and *āl* 'a tree'). Therefore, this sutra, according to Naccinārkkiniyar refers only to this difference. This, however, has already been explained under S. 45 in his commentary. He brings this here probably to emphasise the same. In spite of the divergent views, Naccinārkkiniyar also agrees that the consonants and shorter *u* have the same pronunciation irrespective of their occurrences as individual sounds or as occurring in words[15].

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14. Pavaṇanti, Naṉṉūl. S. 127., Venkatarajulu Reddiar, Eḻuttatikāravārāycci, P. 56. K. Vellaivaranan, Tolkāppiyam-Naṉṉūl Eḻuttatikāram, P.91, and P.S. Subramanya Sastri, Eḻuttatikārakuṟippu urai, P. 66.

15. In the present available edition of Naccinārkkiniyar's commentary the *āytam* is also introduced in the later discussion. There is another sentence explaining the phrase *terintu vēṟuicaittal*, according to which shorter *u* alone cannot be pronounced

S. 54 states that $a+i$ becomes *ai* and S. 55 states that $a+u$ is *au*. That means that *ai* and *au* were pronounced as dipthongs during Tolkāppiyar's time. According to Iḷampūraṉar, the two sutras are about *pōliyeḻuttu* 'resemblance of sounds' and they should not be taken as such here. Nacciṉārkkiṉiyar explains that the combination of some letters will give the pronunciation of some other letter and these are not to be taken as grammatical principles.

S. 56 says that $a+y$ can be pronounced as *ai*. S. 57 states that there are environments in which one mātra is assigned to the sound and Iḷampūraṇar rightly takes this as referring to *ai* only. Nacciṉārkkiṉiyar explains that the shortening of *ai* can occur in initial, medial and final positions and the shortening of *au* only in the initial position. These are referred to as *aikārakkuṟukkam* 'shortening of *ai*' and *aukārakkuṟukkam* 'shortening of *au*' by later day grammarians.[16]

S. 58 is about the alteration of *y* and *i* in the final position.

5.8. All the twelve vowels are said to occur in the initial position (S.59). The next sutra (S. 60) says that consonant can also occur initially only when followed any vowel. Iḷampūraṇar

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independently. Since he does not speak in this way in the body of the commentary and it is not correct to say that the shorter *u* alone cannot be pronounced even according to him, those two sentences are probably interpolations. Cf. Venakatarajulu Reddiar, op. cit. P. 56 and Devaneyappavanar's foot note to Nac. eḻuttu. P.50.

16. For instance, *Naṉṉūl*, S. 61, and 65.

asserts that the term *uyirmey* occurring in the sutra is not to be taken as a single unit but as two sounds. If it is one unit, then the author should have given a list of such syllabic letters occurring in the initial position. This will unnecessarily swell up the enumeration of the initial sounds. Naccinārk-kiniyar further adds that the subsequent sutras (S. 61 to 65) which speaks of the consonants occurring in combination only with certain vowels become useless if *uyirmey* is taken as one unit.

S. 61 to S. 65 list the restrictions of the consonants occurring with vowels.

S. 66 is intended only to justify the occurrence of certain consonants which do not usually occur in the language. These consonants, according to this sutra, will occur in the initial position when they are referred to. For instance, *ṇ* cannot occur initially in Tamil. But it occurs in S. 302 when it is referred to as *ṇakāra iṟuti* 'the ending of *ṇ*'.

S. 67 states that the shorter *u* can occur in the initial syllable with the consonant *n* of kinship term. This and S. 68 have already been discussed in the previous chapter (supra. P 54).

The following table gives the occurrences of consonants and vowels coming initially. T denotes the initial sounds according to Tolkāppiyar. I refers to the additional examples given by Iḷampūraṇar and N refers to the additional occurrences given by Naccinārkkiniyar besides what Tolkāppiyar and Iḷampūraṇar have given.

Initials

	a	*ā*	*i*	*ī*	*u*	*ū*	*e*	*ē*	*ai*	*o*	*ō*	*au*
k	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*
ṅ												
c	*I*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*I*	*T*	*T*	*N*
ñ	*I*	*T*					*T*			*T*		
ṭ												
ṇ												
t	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*
n	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*
p	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*
m	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*
y	*I*	*T*			*N*	*N*					*N*	*N*
r												
l												
v	*T*	*T*	*T*	*T*			*T*	*T*	*T*			*T*
ḻ												
ḷ												
ṟ												
ṉ												
+	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*	*T*

Both the commentators are aware of the fact that certain consonants not occurring initially according to Tolkāppiyar can occur in the language.

Iḷampūraṇar suggests that the words other than *āriyacci-taivu* 'corrupt form of Sanskrit' and *aḻivaḻakku* (the correct reading must be *iḻivaḻakku* as found in Naccinārkkiniyar's commentary in S. 64) 'the colloquial form or the usage of the low class' can be accepted since Tolkāyppiyar himself has stated that new usages and new forms need

not be condemned if the age accepts them (S. 935).[17] From the above, Iḷampūraṇar seems to feel that there can be three ways of change in the language (especially in its phonological system) firstly due to borrowing (*āriyaccitaivu*), secondly, due to the changes that happen in the colloquial speech (*aḻivaḻakku*) and thridly due to the natural evolution of the standard language.

Nacciṉārkkiṉiyar refers to another change which comes from *ticaiccol* 'dialectal words'.[18] Instead of *āriyaccitaivu*, he uses the word *vaṭacol* 'northern words, i. e. Sanskrit'. The word *āriyaccitaivu* is also used by him in the commentary on S. 75. Probably, he uses the term to refer to Prakrit words coming to Tamil.

The examples given by the commentator for later developments are significant. Iḷampūraṇar shows additional illustrations for *c* occurring with *a* and *ai*, *ñ* with *a* and *y* with *a* in the initial position. Nacciṉārkkiṉiyar who came after the authors of Vīracōḻiyam and Naṉṉūl gives occurrences of *c* with *au* and *y* with *u*, *ū*, *ō* and *au* in initial position in addition to what Iḷampūraṇar has given.[19]

c

I. *cakaṭam*[20] 'cart'; *caiyam*[21] 'Mountain'
N. ,, ,,
camaḻppu[22] 'shame' *cauriyam* 'bravery'
caṭṭi 'earthern vessel'

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17. Iḷam. eḻuttu P. 25 (S. 62, 64, 65)
18. Nac. eḻuttu. P. 55 (S. 64)
19. S. V. Shanmugam 'A modern evaluation of Vīracōḻiyam' a paper presented in the seminar on grammatical theories in Tamil and to be published in Annamalai University Journal.
20. puṟanāṉūṟu. 102.2; Naṟṟiṇai. 4.9; Kuṟuntokai 165.3
21. Paripāṭal. 11.14.
22. Ibid. 20.36.

ñ

I. *ñaḻiyiṟṟu* (?)
N. „
ñamali[23] 'dog'

y

I. *yavaṉar*[24] 'foreignes'
N. „ *yutti* 'inference'. *yūpam*[25] 'scarificial pillar' *yōkam*[26] 'waist band' *yauvaṉam* 'youth'[27]

There is some misgiving in the mind of some Tamil scholars about the statement of non-occurrence of *c* especially with *a*. Mayilainātar, the first commentator of Naṉṉūl quotes a poem which gives the list of words having *ca* initially.[28] Devanayeppavanar, the editor of Nacciṉārkkiṉiyar's commentary says that there is a variant reading for the sutra 62., according to which *au* alone cannot occur with c. He. gives a number

23. Perumpāṇāṟṟuppaṭai. 132; puṟanāṉūṟu. 74.3; kuṟuntokai. 179.2; Naṟṟiṇai. 285.5.
24. Puṟanāṉūṟu. 56.18; cilappatikāram.5.10.
25. Patiṟṟuppattu. 67.10; Puṟanāṉūṟu. 15.21.
26. cilappatikāram. 14.170; Maṇimēkalai. 3.100.
27. The initial occurence of *cau-*, *yu-* and *yau-* belonging to Middle Tamil period only. There are two instances of initial *ñi-* in Old Tamil. e.g. *ñimiṟu* 'honly bee' Patiṟṟuppattu 12.12; Puṟanāṉūṟu 93.12.; cilappatikāram 25.20; *ñiṇam* 'flesh' Puṟanāṉūṟu. 177.4 and this is not so far noted. There is also one instance of initial *lō* in Maṇimēkalai. 12.73. i. e. *lōkam* world'.

K. Vellaivaranan 'Tamiḻilakkiya Varalāṟu – Tolkāppiyam' I Part, P. 92.

28. Naṉṉūl. Mayilainātar. Commentary. P. 37 (S. 105).

of such words and states thus:[29] "there are more than hundred words which are pure, basic, very ancient, necessary and well established Tamil words which also occur in the colloquial language. It is a great mistake to assert that these words are only of later day occurrences. *cettāṉ* 'he died' should be in ancient days like *cattāṉ* as it is found in Telugu. It is absurd to imagine that the Tamilians of Tolkāppiyar's age who built forts could not make a *caṭṭi* 'earthern vessel' ".

The whole argument misses the real point which is one of pronunciation. He himself stated that in the case of *cā* 'die' the root becomes shortened in the past tense form: but we have the form *cettāṉ* 'he died'. Here the vowel *a* which was not very consistent in its pronunciation and therefore liable to be changed, becomes palatalised after the palatal consonant. This applies not to long vowel but only to the short vowel.[30] This is not a solitary instance. The palatal consonant *ñ* and *y* also have the same influence on *a*. *yāṉ* 'I' and *yām* 'we' become in oblique form *eṉ* 'my' and *em* 'us' respectively whereas *tāṉ* 'he, she or it' becomes *taṉ* without change of vowel. The same explanation applies to the absence of *a* occurring with *ñ* in the initial syllables. What to day is found as *naṇṭu* 'crab' occurred as *ñeṇṭu* in Old Tamil (Akanāṉūṟu. 176.8). In all these cases there is a palatalisation of the original vowel *a*. But there must have been certain dialects in which such palatalisation did not occur. It could be from such dialects that the various words quoted by various authors have come into the literary language.

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29. Nac. eḻuttu. PP. 53 and 54 foot-note.
30. T. P. Meenakshisundaran. 'The Tamil sounds' PP. 98 and 99.

A comparison with other dialects and other Dravidian languages shows that this is a peculiar characterisitic feature of Old Tamil.[31]

5.9. S. 69 states that all vowels except *au* can occur finally. Both the commentators say that this statement is common to vowels and syllabic letters, and short vowels occur finally only in *aḷapeṭai.* This interpretation may be due to other sutras (S. 70 to 76) referring to the restrictions of consonant-vowel combinations in the final position. Naccinārkkiniyar further states that even according to Tolkāppiyar the *aḷapeṭai* is considered as ending in short vowel as Tolkāppiyar referred to *aḷapeṭai* as short vowel ending in S. 609. Naccinārkkiniyar gives only monosyllabic words as examples for this sutra and raises a doubt about the significance of the sutra as Tolkāppiyar has already referred to this in S. 42. He answers that in the earlier sutra the word formation were discussed about, but in this sutra Tolkāppiyar is referring to the sounds occurring in the final position. Even though Naccinārkkiniyar has given only monosyllabic words as examples there are disyllabic and polysyllabic words also as shown by Iḷampūraṇar.

S. 70 Says that *au* can also occur finally if it is preceded by *k* and *v*.

e never occurs at the end of a word after a consonant (S. 71).

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31. Proto-Dravidian **ca–* has got three developments in Tamil, viz., either *c* is lost, or *c* is replaced by *t* or *a* is replaced by *e*. Bh. Krishnamoorthy, 'Telugu verbal bases' P. 96 ff, and T. Burrow, 'Dravidian Studies', V. BSOAS XI, P. 601 and P. 606 (1943–46).

o occurs finally with *n* only (S. 72).

For *ē* and *ō* ending occurring after *ñ* (S. 73), Iḷampūraṉar does not give any example. He says that some words must have gone out of use and for the rest, he wants the readers to find out where they occur in literary and approved colloquial language. But Nacciṉārkkiṉiyar gives examples except for *ō* ending and mentions the word *uriñō* as the form which has come later into usage.

There is some difficulty with reference to S. 74. This sutra has ordinarily been taken to mean that *u* and *ū* will not occur as finals when preceded by *n* and *v*. Here also Iḷampūraṉar repeats the statement which he has made with reference to the previous sutra. Both the commentators suggest that in a few cases the vowel *u* can occur with *v*. Iḷampūraṉar gives two examples, *novvu* 'suffering' and *kavvu* 'catching'. Nacciṉārkkiṉiyar refers to many more words of frequent usage like *katavu* 'door' *turavu* 'seek' *kuvavu* 'large', *puṇarvu* 'joining' *nukarvu* 'enjoymet' etc. Tolkāppiyar himself speaks in S. 234 of words like *iṟavu* 'prawn' *puṟavu* pigeon' etc. It is true that he does not always contemplate the glide there. But nor does he bar the glide coming there. *aḷavu* 'measure' is another word mentioned by him (S. 11 and 13) but he also uses the form *aḷapu* in S. 3, 4, 5 etc. *kaḷaviyal* (*kaḷavu*+*iyal*), the heading given for one of the chapters of *poruḷatikāram* and *kaḷavu* (S. 1046) 'pre marital love' should also have *p* instead of *v*. Unless one suggests that there was *pu* instead of *vu* in all these cases it is difficult to explain these forms in the force of the statement that *u* will not occur finally after *v*. Therefore, the sutras where words with *vu* have been mentioned might have been errors committed by later copyists influenced by the usage of their time.

porun 'fight' can take the form *porunu* and *porunū* as verbal noun and verbal participle respectively (S. 299). Hence, Iḷampūraṇar says that in a few cases *u* can occur after *n*.

Arasan Shanmuganar has suggested a different meaning for this sutra. The sutra, according to his interpretation, will mean that *u* will not occur before *n* and *ū* will not occur before *v*[32]. Since the form *porunu* occurs, one has to assume, to justify this interpretation, that Tolkāppiyar does not contemplate the augument as a natural ending.

S. 75 says that there are only two *cu* ending words. Both the commentators give *ucu* 'wood worm' and *mucu* 'a particular variety of monkey' as examples.

There is only one *pu* ending word which has two meanings (S. 76), *tapu* 'die' and 'make another die'.

S. 77 says that there are no restrictions for others. Iḷampūraṇar has interpreted the sutra that other syllabic letters, not mentioned in previous sutras, can also occur finally when they themselves are referred to. The interpretation given by Iḷampūraṇar is unnecssary because it has already been said that the letters when they are referred to singly, stand as initials and finals. Therefore, S. 66 is itself sufficient. It is in this sense, probably, that Pavaṇanti has understood Tolkāppiyam.[33] He refers to other letters which are occurring initially as occurring so when they are referred to.

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32. Venkatarajulu Reddiar op. cit. P. 70. K. Vellaivaranan refers to another interpretation of Arasan Shanmuganar i. e., *n* cannot occur with *u* and *ū* Tolkāppiyam Naṉṉūl eḻuttatikāram. p. 105.
33. Naṉṉūl S. 121.

Naccinārkkiniyar interprets the sutra in such a way as to mean that there is no restriction for the vowels occurring with other consonants that are not referred to previously and that all syllabic letters which cannot occur finally can do so when they are referred to.

It is to be noted here that Naccinārkkiniyar brings out the fact that *ṅ* cannot occur with any vowel in the final position and the consonants other than *ñ*, *n*, *v*, *c*, *p* and *ṅ* can occur finally with nine out of twelve vowels, the exceptions being *e*, *o* and *au*.

He has attempted to illustrate the list of vowels occurring with consonants in the final position and he has succeeded only with regard to *k* and *ṉ* coming with all the remaining nine vowels, *t*, *m* and *ṟ* with all the remaining vowels except *ē*, *l* with all the remaining vowels except *ō*; *ṭ*, *ṇ*, *r*, *l* and *ḷ* with all the remaining vowels except *ē* and *ō* and *y* except *i*, *ī*, *u* and *ē*.

From S. 78 to 81, Tolkāppiyar deals with the consonantal endings. S. 78 gives the list of consonants and 79 to 81 are about the actual number of words wherein certain consonants occur finally. There are only two words of *n* ending (S. 79). e. g. *porun* 'fight' and *verin* 'back', There is one word of *ñ* ending (S. 80). e.g. *uriñ* 'rub'. There are four words of *v* ending (S. 81). e.g. *av* 'that', *iv* 'this', *uv* 'intermediary' and *tev* 'enemity'.

The following table gives the list of final sounds.

	a	*ā*	*i*	*ī*	*u*	*ū*	*e*	*ē*	*ai*	*o*	*ō*	*au*	+
k	×	×	×	×	×	×		×	×		×	×	
ṅ													
c	×	×	×	×	×	×		×	×		×		
ñ	×	×	×	×	×	×			×				×
ṭ	×	×	×	×	×	×		*	×		*		
ṇ	×	×	×	×	×	×		*	×		*		×
t	×	×	×	×	×	×		*	×		×		
n	×	×	*	×				×	×	×	×		×
o	×	×	×	×	×	×		×	×		×		
m	×	×	×	×	×	×		*	×		×		×
y	×	×	*	*	*	×		*	×		×		×
r	×	×	×	×	×	×		*	×		*		×
l	×	×	×	×	×	×		×	×		*		×
v	×	×	×	×				×	×		*	×	×
ḻ	×	×	×	×	×	×		*	×		*		×
ḷ	×	×	×	×	×	×		*	×		*		×
ṟ	×	×	×	×	×	×		*	×		×		×
ṉ	×	×	×	×	×	×		×	×		×		×
+	×	×	×	×	×	×	×	×	×	×	×	×	

* Illustrations not available.

5.10. The last sutra (S.82) in this chapter is important. The Tamil language divides the words into two main categories, the superior class of words and the inferior class of words called *uyartiṇai* and *a∘°∘ṟiṇai* respectively. As a general rule, it may be stated that the first refers to human beings and the second class to all the rest, living or non-living. Many of the inferior class words are now common to both the singular and the plural. It is surprising that the distinction of number

which is found in words of superior class of nouns and pronouns does not exist in these inferior class of nouns. An explanation could be put forward on the basis of this sutra and on the basis of the distinction of number found in the pronoun. It is admitted that in the pronouns in the first person (*yāṉ*, *yām*) second person (*niṉ*, *num*) and third person (*tāṉ*, *tām*) the singular is denoted by the alveolar nasal and the plural by the labial nasal. It is the original state of affairs. One may generalise that in other places also *ṉ* denoted the singular and *m* denoted the plural. In Tamil, the final nasal has got a tendency to be weakened.[34] *am* becomes *ai* or the final nasal is recognised only by the nasalisation of the previous vowel (*nāṉ*, *nã*) or it loses the nasality to become *v* or it is completely lost. As a consequence of this weakening tendency, the final nasals have almost disappeared, except *m*, *ṉ* and *ṇ*. *ṇ* and *ṉ* have also disappeared except in the often repeated ordinary words. The words ending in cerebral nasal have become vowel endings with enunciative vowels: *kaṇ* 'eye' becomes *kaṇṇu*, *maṇ* 'earth' becomes *maṇṇu* etc.

Here a change has occurred because of the tendency referred to above, *m* and *ṉ* can be pronounced almost alike, perhaps with nothing more than the nasalisation of the previous vowel. Therefore, in the final position only where they denoted the inferior class of nouns, *m* and *ṉ* were neutralized. Therefore both the endings *m* and *ṉ* have the same meaning. *maram*, *maraṉ* 'tree' and *kuḷam* and *kuḷaṉ* 'tank' etc. But in the age of Tolkāppiyar there were nine words which were not thus neutralised. The commentators enumerate them, viz. *ekiṉ*, Swan; *cekiṉ*, *viḻaṉ*, *payiṉ* 'rudder', *kuyiṉ* 'cloud', *aḻaṉ*

34. T. P. Meenakshisundaran, Tamiḻ Moḻi Varalāṟu. Tamil Encyclopedia Vol. V. p. 467.

'corpse', *puḻaṉ* 'tube', *kaṭaṉ* and *vayāṉ* 'king crow'. Later ages give more number of words but they must have come into the standard literary language from the dialects, after the age of Tolkāppiyam and they, hence, cannot be brought under this discussion. On the basis of the later examples, it has been defined that the nasalisation occurs after two consecutive short open syllables, but no such restriction is mentioned in Tolkāppiyam. This theory has to be studied in detail with reference to the other Dravidian languages.

Six PIRAPPIYAL

6.1. The articulation of the sounds is explained in the third chapter called *pirappiyal*. *Pirappu* means birth and the sounds are born when they are articulated.

6.2. The first sutra (S. 83) of this chapter describes the articulation of the speech sounds in general. The articulation is said to be effected by the uprising energy of the air or breath excited from the navel region. This is said to reach the head, throat and chest. Then the air comes into contact with teeth, lips, tongue, nose and palate. Thus coming into contact with those eight organs, all the sounds are produced.

What is meant by head is not clear. Chest may be interpreted as referring to the lungs. W. S. Allen is of the opinion that the mention of the head and chest as resonators in Sanskrit grammars is probably taken over from the subjective teriminology used in India, as in the west, for the description of the various voice registers[1].

1. W. S. Allen, Phonetics in Ancient India' P. 24.

Dr. P. S. Subramanya Sastri asserts that this sutra is more or less a translation of the four kārikas of Pāṇinīya Sikṣā[2]. But, there are many differences between Tolkāppiyam and the Sikṣā.

The Sikṣās differentiate between *sthāna* 'place' and *karaṇa* 'organ'. Atharvaprātiśākhya explains them as follows[3]: "The *sthāna* is that which is approached; *karaṇa* that which approaches" corresponding to what Pike calls point of articulation and articulator[4]. As Allen points out that 'in a large majority of cases the articulator is the area of the tongue'[5].

Tolkāppiyar does not make such distinctions but he has divided the tongue as follows: *mutal nā* 'the back portion of the tongue' (S. 86 and 89), *iṭai nā* 'the middle portion of the tongue' (S. 90 and *nuṉi nā* 'the front portion of the tongue' (S. 91 and 94). In the palatal region, he has not specified the exact region of contact except *aṇpal* (S. 86 and 96) and *aṇṇam naṇṇiya pal* (S. 93) both of which indicate the region near the teeth, i.e., teeth ridge. The Sikṣās extend the same classification to lips but Tolkāppiyar does not make such distinction for the labials.

Iḷampūraṇar and Nacciṉārkkiṉiyar specify the exact regions of contact in the palatal region in the commentaries on S. 89 to 92 and not in 94 to 96. Iḷampūraṇar has considered the tongue as the articulator and therefore has made the

2. P. S. Subramanya Sastri 'History of grammatical theories in Tamil P. 2. The numbers of Kārikas are 7 to 9 and 13.
3. W. S. Allen, op. cit. 17.
4. Ibid.
5. Ibid. P. 18.

articulator as the subject of the sentence and the point of articulation as the object in his commentatories on S. 86, and 93 to 96. But this distinction is not maintained in the commentary on S. 89 and 90 where both the articulator and the point of articulation are interpreted as occurring in a co-ordinate construction. Naccinārkkiniyar follows the same interpretation except in the case of S. 86 which he interprets as both occurring in co-ordinate construction.

Tolkāppiyar does not also differentiate between external and internal processes as is done by the Sanskrit grammarians. The internal processes occur within the mouth and the external processes outside the mouth.[6] Tolkāppiyar speaks of the head, the throat and the chest as one group in the first sutra but he refers to *miṭaṟṟu vaḷi* 'throat air' with reference to vowels (S. 84) and semi vowel *y* (S. 99) and *mūkku vaḷi* 'nose air' with reference to nasals (S. 100). On this basis, Iḷampūraṇar has attributed *talai vaḷi* 'head air' to the stops, *miṭaṟṟu vaḷi* 'throat air' to all the semi vowels.[7] Naccinārkkiniyar has allocated *neñcu vaḷi* 'chest air' to *āytam.*[8] Probably, the commentators seem to have equated these sound centres (head, chest, nose and throat) with the Sanskrit *prātiśrutka* 'resonators'.

There are some difficulties in accepting the above interpretations of the commentators. (1) Tolkāppiyar has not included the nose with the other three organs, viz., the head, the throat and the chest. (2) He himself has not mentioned the throat air explicitly with reference to other semivowels.

6. Ibid. P. 22.
7. Iḷam. eḻuttu. P. 34 (S. 100).
8. Nac. eḻuttu. P. 99 (S. 101).

(3) If the 'throat breath' can be interpreted as 'laryngeal breath' i.e. voicing, then, the nasals are not mentioned as having the 'throat breath'. (4) He does not attribute *talaivaḷi* 'head breath' to any sounds.

So one may be tempted to say that this sutra may be a later day interpolation.[9] But, a more detailed examination of Tolkāppiyam is necessary for putting forward the theory of interpolation; for, as far as this question is concerned, it may be argued that perhaps some sutras explaining these doubts have disappeared from the book now available.

Prof. T. P. Meenakshisundaran, in his 'Tamil Sounds'[10] explains the 'throat breath' and 'nasal breath' mentioned in the body of the chapter in a different way. According to him, "the non-mention of the nose along with the head etc., in the first sutra ought to put us on guard equating the throat mentioned in S. 84 and 99 with the throat mentioned in the first sutra". So he proceeds to explain in this way: "According to the Indian philosophers, sound can be produced only by the clashing or Abhighāta of two things, a thing is set in vibration only by something coming into contact with it. Speech sound is produced by the clash of breath striking an obstruction caused in the vocal organs and escaping there-

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9. C. R. Sankaran discusses elaborately this first sutra in 'Tolkāppiyar and the science of Phonemics', *Tamil Culture* ix. 117 - 130 (1961). He thinks that the lines two to four (where the eight organs are mentioned) are interpolations (P. 121).

10. T. P. Meenakshisundaran 'Tamil Sounds' pp. 49 ff.

from. Tolkāppiyar has emphasised the idea of Abhighāta for setting up the sound vibration by the term *muntuvaḷi........ uṟuppuṟṟu amaiya* 'the outcoming air forces against the organs and rests'. This clash is clear in the case of all the sounds except the vowels and *y*, for, in those cases, we see with our eyes the contact. But, how are the vowels to be classed as sounds in the absence of an Abhighāta? So, the 'throat breath' that is, laryngeal vibration or reasonance formed by the escapement of air after its impact there, has been mentioned to explain the clash hidden from our view. Though, the clash is not visible, it is there in the throat and one can feel it by pressing the finger against the Adam's apple or by pressing the palm of the hand against the crown of the head. *y* must have been pronounced in much more open position' that is, more as a semi-vowel than as a fricative, and hence the special mention of the clash in the pronunciation of that sound as well. *mūkku vaḷiyicai* 'the nasal breath' is mentioned for another purpose. Probably, *icai* refers to voicing because they (nasals) are voiced sounds. In the sutras, explaining the articulations of individual sounds, the nasals have been grouped with their homorganic plosives. In the case of plosives, the breath rushes through the mouth, but in the case of nasals, the soft palate being lowered the breath rushes up and escapes through the nose. To make this distinction clear it was necessary to refer to the 'nasal breath ".

This explanation tries in a way to interpret these terms without reference to the first sutra. But this leaves out the head, the throat and the chest mentioned in the first sutra which is still an enigma. Anyhow, this interpretation emphasises the pragmatic approach of Tolkāppiyar, that is to say, Tolkāppiyar did not describe exhaustively all the features of

a sound but only the characteristic features of a sound necessary for our understanding. Note that Tolkāppiyar has mentioned only the opening of the mouth for *a* and *ā* (S. 85) and only the lip rounding for all the back vowels (S. 87), without any further details.

Regarding the Intra-buccal processes (abhyantara-prayatna) Tolkāppiyar has mentioned some sort of contacts for all the sounds except *k*, *ṅ*, *c*, *ñ*, *ṭ* and *ṇ*. Even then, the contacts do not provide any clasificatory criterion. The retroflex lateral, *ḷ* and the alveolar lateral, *l* are differentiated only by the different kinds of contact (not by the point of articulation) even though they belong to the class of laterals (S. 96).

The following are the contacts mentioned by him in describing the sounds. *aṅkāttal* (S. 85) "(mere) opening", *uṟal* (S. 86) "contact" *italkuvital* (S. 87), 'lip rounding', *oṟṟal* (S. 93, 94, 96) 'complete clousure', *varuṭal* (S. 95, 96) 'slight contact' or like the passage of the hand on another part of the body or tap, (this may be equated with īṣat–spṛṣṭa but whether it refers to a fricative, a trill etc. is not distinguished) *īyaital* (S. 97), 'coming together' *aṇartal* (S. 94 and 95) 'move upwards' - retroflexion and *icaikkaṇṇuṟṟaṭaital* (S. 99) which is probably the constriction required for the production of *y*.

6.3. *a* and *ā* are produced by opening the mouth (S.85). Probably, 'opening of the mouth' refers to the neutral position of the tongue. Tolkāppiyar, however, mentions *aṅkāttal* 'opening' to *i*, *ī*, *e*, *ē* and *ai* also (S. 86). He differentiates vowels as rounded and unrounded and 'opening' refers to unrounded vowels. Rounded vowels are referred to as *ital kuvital* (S. 87).

With reference to the articulation of *i*, *ī*, *e*, *ē* and *ai*, the explanation given by Tolkāppiyar is original and therefore a little surprising. He speaks of *uṟal* 'contact'. The palatal vowel is produced by the middle of the tongue approximating to the palate. But *uṟal* cannot be translated as approximating. If the palatograph for *i* is examined, it will be seen that there is an untouched portion in the palate at the palatal region and the contact is revealed near and above the root of the tongue[11]. As, an approximation of the middle of the tongue to the middle of the palate cannot be easily described, Tolkāppiyar has recourse to referring to the contact which can be easily explained. The contact of the right and the left edge of the back of the tongue with the back portion of the palate (soft palate) is contrasted with similar contacts at middle and front portions. The edges come into contact with the teeth–ridge.

Iḷampūraṇar interprets *aṇpal* as the place adjacent to teeth, and *mutal nā viḷimpu* as the edges of the back portion of the tongue which alone come into contact when the front vowels are articulated.

Venkatarajalu Reddiar does not appreciate this original statement by Tolkāppiyar and he wants to interpret this in terms of Sanskrit Śikṣās and therefore interprets *aṇpal mutal* as the region near the upper teeth and *nā viḷimpu* as probably the middle of the tongue.[12] How *viḷimpu* can mean the central portion is not at all explained by him. According to the Tamil lexicon *viḷimpu*, coming probrably from the *viḷi*, 'to

11. T. P. Meenakshisundaran. 'The Tamil sounds P. 30.
12. Venkatarajalu Reddiar. op. cit. P. 77.

diminish' or 'pass away' means the edge or rim or the margin or the gums as forming the edge of the root of the teeth. Therefore, it is difficult to understand how Venkatarajalu Reddiar arrives at his interpretation.

Next, Tolkāppiyar takes for consideration the back vowels *u*, *ū*, *o*, *ō* and *au* (S. 87). As already stated, their articulations are not described in terms of their nature of back vowels. Probably, he feels that the approximation of the back of the tongue towards back portion of the palate, as realised in front vowels, continues also in these back vowels, the real distinction therefore, being in the shape of the mouth. Therefore, he speaks of these vowels being articulated through the rounding of the lips. No distinction is made between the openness or closeness.

6.4. Tolkāppiyar grouped together, firstly, *a* and *ā*, secondly *i*, *ī*, *e*, *ē* and *ai* ahd thirdly *u*, *ū*, *o*, *ō* and *au*. There should be necessarily variations amongst the sounds mentioned in each one of these groups. Otherwise one cannot have twelve vowels but only three. Therefore, Tolkāppiyar hastens to add that there are slight differences among these, (S. 88) though each group is born at the same place of articulation. S. 88, according to Iḷampūraṇar and Naccinārkkiniyar, stands midway between sutras on vowels and consonants, and therefore should be applied to both vowels and consonants. Venkatarajalu Reddiar[13] and Dr. P.S. Subramanya Sastri,[14] however, feel that this is applicable to vowels only

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13. Ibid. P. 79.

14. P. S. Subramanya Sastri, Eḻuttatikāra Kuṟippurai, P. 92.

and not to the consonants because the latter are differentiated individually in the subsequent sutras. But no such distinction is mentioned for *r* and *ḻ* and therefore some such sutra like this is required.

6.5. *k* and *ṅ* are articulated by bringing the back tongue into contact (S. 89) with the back palate. *c* and *ñ* are articulated when the middle tongue comes into contact with the middle palate (S. 90) and *ṭ* and *ṇ* are articulated by the contact of the front tongue and the front palate (S. 91).

It is curious that Tolkāppiyar does not refer to any retroflextion for *ṭ* and *ṇ*. The front tongue mentioned in S. 91 does not refer to any particular definite point. *ṭ* and *ṇ* are certainly not dentals like *t* and *n*. The retroflextion characterises, according to Tolkāppiyar the Tamil *ṟ*, *ṉ* (S. 94), *r* and *ḻ* (S. 95). Except for this retroflextion which characterises *ṟ* and *ṉ*, there is no further distinction between *ṭ* and *ṇ* on the one hand, and *ṟ* and *ṉ* on the other. Prof. Firth differentiates between Indian or Sanskrit *ṭ* and English *t* as follows: "The Indian *ṭ* is not made with the tip in the English manner but with the very edge or rim of the tip which is slightly curled back to make this possible"[15]. It is for consideration whether the same distinction, more or less, might have not existed in Tolkāppiyar's time between *ṭ* and *ṟ*. If so, *ṭ* and *ṇ* have to be considered as alveolars[16] and *ṟ* and *ṉ* as retroflex. On the basis of the sutras which have come down to us, it is very difficult to make any further differentiation. If Tamil *ṭ* is also made a retroflex, then, there will be no distinction between *ṭ* and *ṟ*.

15. W. S. Allen. op. cit. P. 53.
16. P. S. Subramanya Sastri, History of Grammatical theories in Tamil' P. 43.

There is one point to be noticed. The description of the articulation of ṟ and ṉ (S. 94) comes after the description of t and n (S. 93) This is not in accordance with the traditional arrangement of the plosives where p precedes ṟ. Both the commentators explain that the sutras follow the order of articulation by the tongue[17]. After k, c and ṭ, t comes as the dental and all of them have simple contact without any retroflexion or any change. After finishing the cases of simple contact, Tolkāppiyar refers to the articulation by the retroflexion of the tongue and then the articulation with lip or the lip and the teeth are described. This also suggests that ṭ and ṇ are not retroflex sounds according to Tolkāppiyar.

The dental *t* ans *n* are next taken up by Tolkāppiyar (S. 93). The point of articulation for these sounds is *aṇṇam naṇṇiya palmutal maruṅku.* According to Iḷampūraṇar, it is a place adjacent to teeth. Naccinārkkiniyar interprets it as the lower part of the teeth. Tolkāppiyar specifies that the articulator is the blade of the tongue. He uses the word *parantu* 'having spread out' to describe the manner of contact. The phrase *meyyuṟa* in the sutra is interpreted by Iḷampūraṇar as to mean the proper contact of the tongue with the particular organ and also he proceeds to comment that this is applicable to all sounds by emphasing the fact that the sounds are pronounced properly by the correct contact of the respective vocal organs.

Naccinārkkiniyar, on the other hand, interprets *mey* as referring to the front portion of the tongue and *uṟa oṟṟa* to

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17. Iḷam. eḻuttu. P. 32 and Nac. eḻuttu. P. 97 (S. 94).

the closer contact.[18] He further explains thus: "In the first sutra of this chapter, the organs of articulation coming together have been mentioned as *uṟuppuṟṟu amaiya*. There are three different contacts, namely, *uṟa oṟṟal, ciṟitu oṟṟal* and *varuṭal*. *Uṟa oṟṟal* means close contact with the greatest pressure. *Ciṟitu oṟṟal* means close contact with lesser pressure and *varuṭal* will be a slight stroke. Perhaps, he is thinking of three kinds of contacts referred to in Pāṇiṇīya-Sikṣā as *spṛṣṭa, īsat-spṛṣṭa* and *nema-spṛṣṭa*.[19]

It is Iḷampūraṇar's interpretation which seems to make any sense here. Therefore, according to Tolkāppiyar, one may conclude that *t* and *n* are produced at the lower part of the teeth with the blade of the tongue well spread out or properly spread out.

The articulations of *ṟ* and *ṉ* are described in S. 94 as follows: When the front tongue is being raised and allowed to have closer contact with the palate (i.e. hard palate), *ṟ* and *ṉ* are produced. As already noted, the retroflexion is referred to here by the term *aṇari*. Therefore, when there is retroflexion of the front tongue coming into contact with the palate, one has *ṟ* and *ṉ*.

The description of the articulation of *r* and *ḻ* is more or less similar to the above except in the manner of contact. *ṟ* and *ṉ* have *oṟṟal* 'closer contact' while *r* and *ḻ* have *varuṭal* 'lesser contact' which may perhaps mean mere friction.

The modern pronunciation *ṟ* is that of a rolled sound or trill. The *r* is the ordinary fricative without much rolling.

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18. Naccinārkkiṉiyar takes *uṟa* not as the verb coming from *uṟu* 'touch' but as an *uriccol* which means 'to great extent'.

19. Pāṇiṇīya-Sikṣā, S. 38., W. S. Allen, op. cit. P. 25.

Then the contrast between them is in the manner of contact. *r* is *varuṭal* and *ṟ* is *oṟṟal*. This contact of *ṟ*, though closer than that of *r*, is not that of any stop. There is more pressure in the latter than found in trill. Even though, Naccinārkkiṉiyar differentiates the three degrees of contact in the commentary on S. 93, he interprets *oṟṟa* and *varuṭa* found in these two sutras as *taṭava* 'touching' whereas Iḷampūraṇar interprets them as *oṟṟa* and *taṭava* respectively. But Pavaṇanti refers correctly to the trilled pronunciation of *ṟ* by the term *naṉiyuṟil* 'if the contact is many (times).[20]

S. 96 describes the articulation of *l* and *ḷ*. The edge of the tongue as it swells up (*vīṅkal*), reaches the adjacent portion of the teeth-ridge or blade where it comes into closer contact to produce *l*. Instead of having the close contact, if the swelled up blade touches and goes, then, *ḷ* is articulated. Therefore, according to Tolkāppiyar, *l* and *ḷ* are more or less produced at the same place of articulation and they differ only in the pressure developed. *l* has *oṟṟal* whilst *ḷ* has only *varuṭal*. The point of articulation mentioned here is *aṇpal mutal*. Is it the alveolar or dental region? As already noted, *r* and *ḻ* are alveolars. *l* and *ḷ* are probably dentals. But the dental in Tolkāppiyam is pronounced when the tongue comes into contact not with the centre of the teeth but with the lower part of the teeth.

In Tolkāppiyam itself, one finds that if *l* is followed by the dental *t*, *l* and *t* become assimilated to the alveolar *ṟ* (e–g–*kal* 'stone' +*taṭam* 'way'>*kaṟṟaṭam*. S. 149 and S. 3 66). When *ḷ* is followed by *t*, perhaps because of the flap–like quality of pronunciation, it is assimilated to *ṭ* (e. g. *muḷ* 'thorn'+*tītu* 'bad'>*muṭṭītu*. S. 150 and S. 396). This

20. Naṉṉūl, S. 86.

shows that both *l* and *ḷ* are nearer to the alveolar region, i. e. gingival, though not in the alveolar region itself.

Naccinārkkiniyar tries to introduce the idea of ḷ being a cerebral into his commentary. The word, *viṅkal* which is interpreted by Iḷampūraṇar as 'swelling up' or 'having tension' (*taṭittu*) is interpreted by Naccinārkkiniyar as 'going up' (*mēlnōkkic cenṟu*). The same meaning is given for *aṇari* also. So, in the interpretation of Naccinārkkiniyar, both *l* and *ḷ* will have retroflexion.

Pavaṇanti[21] and Vaitiyanātatēcikar[22] assert that *l* and *ḷ* are articulated at two different places, *l* as alveolar at the lower part of the teeth and *ḷ* at the palate. On the basis of this, Venkatarajulu Reddiar tries to interpret Tolkāppiyar's sutra itself as referring to two different places of articulation and quotes Sanskrit Sikṣās to substantiate his argument[23]. There is no meaning in arguing on the basis of Sanskrit pronunciation, unless, one is prepared to conclude that the Tamil sounds and Sanskrit sounds had no difference whatsoever. The difficulty which drives Naccinārkkiniyar and Venkatarajulu Reddiar to give their own strained interpretation consists in the fact that the pronunciation of these two sounds have changed from what they were in the age of Tolkāppiyar.

Upto this, Tolkāppiyar has followed the order of the movements of the tongue as the articulator. From here on, there is a departure, for, he proceeds to describe the articulation at the lips.

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21. Nannūl. S. 84.
22. Ilakkaṇaviḷakkam. S. 12.
23. Venkatarajulu Reddiar, op. cit. P. 82.

p and *m* are articulated by the two lips coming together (S. 97).

When the teeth and the lip come into contact, *v* is articulated (S. 98). Both the commentators point out that the upper teeth and lower lip are the vocal organs involved here.

The articulation of *y* is described in a curious way (S.99). "The voiced air coming from the throat reaches the palate and there is a kind of tension when the breath seems to create a kind of pressure or close contact. Thus *y* is articulated". Perhaps what is meant here is a friction. Iḷampūraṇar speaks of tongue reaching the palate as the voiced air from the throat reaches the palate and causes a pressure when *y* is articulated. Naccin̲ārkkin̲iyar is mislead by the pharse *miṭar̲r̲u vaḷiyicai* 'throat air'. Probably, he feels that the air has its origin at the throat, and the following is his interpretation: "The air comes arising from the navel area reaches the throat and then reaches the palate and presses there as though a kind of pestle is inserted at the place to produce *y*".

It is to be noted that Pavaṇanti has also not correctly described the articulation for *y*. According to him, the back portion of the tongue comes into contact with the back portion of the palate.[24] The absurdity of this description has already been pointed out by Ilakkaṇaviḷakkam.[25].

6.6. S. 100 states that even though the nasals are articulated at the above mentioned places, they have *mūkku vaḷi*

24. Nan̲n̲ūl. S. 82.
25. Ilakkaṇaviḷakkam. 8. 12.

'nasal air' (i.e. the release of air though the nose) as their special feature.

S. 101 is about the articulation of dependent sounds and they have already been discussed in the fourth chapter of this treatise (vide P. 49).

The last sutra of this chapter (S. 102) which is taken as two separate sutras by Iḷampūraṇar, describes the principle for measuring the speech sounds in Vēdas and also Tolkāppiyar's own approach to the same.

According to Iḷampūraṇar's interpretation, the upward movement of the sound caused by the rising breath and the attribution of mātras to them are found in Vēdas. But Tolkāppiyar says that instead of following the above method, he speaks only of the mātras of the sounds which are capable of expressing the meaning and which are articulated.

Further, Iḷampūraṇar explains the significance of the various terms as follows:

uṟaḻiccivāram denotes the air rising from the navel region going up to the head and coming back to the chest.

vaḷiyicai: The air is called *vaḷi* until it reaches the chest, thereafter it becoms speech–sound.

meyterivaḷiyicai is sound which expresses meaning. So, Tolkāppiyar has not considered sounds like whistling, click etc which are not capable of expressing meaning.

Iḷampūraṇar further says that, according to Vēdas, there are three stages for the sounds during their travel inside.[26]

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26. They are (1) parai, (2) paisanti and (3) madhyma. When the speech sound is articulated and heard, it is called vaikhari. T. P. Meenaksisundaran, The Tamil sounds, P. 29.

Naccinārkkiniyar takes the two sutras as one. As usual with him Naccinārkkiniyar, goes on rearranging the words of the sutra as he likes.

He refers to the two theories of Vēdas. One is the measurement of mātra for the air born at the navel region, and the other is the air coming from mūlādhārā.

Naccinārkkiniyar repeats what Iḷampūraṇar has stated about the sounds which are not capable of expressing meaning and concludes thus: "Therefore, according to our author, sound which is articulated whilst speaking and which is an organic part of a word alone can be termed as *eluttu*. He quotes the following old sutra "that is called *eluttu* which comes into effect by the combination of (1) the place of articulation, (2) the air and (3) the effort or pressure".

It is noteworthy that the emphasis given by Tolkāppiyar on the significance of speech sounds is shared by modern linguists like W. F. Twaddell who says :

"They (Trubetzkoy and Sapir) have laid upon the phonetician the obligation to distinguish between 'significant' and 'merely positional' differences within and among the ranges; the phonetician is finding himself forced to operate with significant phonemes and postional allophones. An act of speech is a physiological performance and an acoustic event; it is also a socially effective signal; and phonetician can neglect the signalling nature of the acts of speech, he studies, only at the peril of triviality and irrelevance"[27].

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27. W. F. Twaddel, Foreward to R. M. S. Heffener's 'General Phonetics' P. VII.

6.7. The phonetic chart of Tamil sounds according to Tolkāppiyar:

	Bilalial	Labiodental	Dental	Alveolar without retrolex	Alveodar with retrolex	Palatal	velar
Stop	*p*		*t*	*ṭ*	*ṟ*	*c*	*k*
Nasal	*m*		*n*	*ṇ*	*ṉ*	*ñ*	*ṅ*
Semivowel		*v*				*y*	
Lateral with more contact				*l*			
Lateral with less contact				*ḷ*			
continuant or tap					*r, ḻ*		

Seven. PUNARIYAL

7.1. *Puṇariyal* 'chapter on sandhi' is the fourth chapter of *eḻuttatikāram.* The commentators say that this chapter discusses generally the sandhi of words described in the second chapter, *moḻimarapu.* Moreover, it includes some of the internal sandhis of noun.

7.2. The first sutra (S. 103) states that in the thirty three sounds, twenty two sounds occur initially and twenty four finally and all these words begin or end only in vowel or consonant. According to Iḷampūraṇar, this sutra summarises the number. His statment is not correct, because from this statement that certain number of sounds occur initially and that certain number occur finally, one cannot add up the number, especially when these sounds overlap. Therefore, there is no elaboration to be summarised. What one can say, at the most, is that the sutra clears the doubt whether such

an assumbtion may be made. Hence Naccinārkkiniyar states that this sutra is intended for clearing the doubt.[1]

The consonant occurring finally is stated to have a dot (S. 104). The next sutra states that the same is the case with the shorter *u*. Probably, because Iḷampūraṇar had not seen a dot on the shorter *u*, he finds out some other common feature between the consonant and the shorter *u*, and interprets S. 104 to mean that (i) the consonant stands with a dot when occurring finally and (ii) when a vowel follows it merges with it. In S. 105, he states that the shorter *u* behaves like the consonant only in the second respect and hence there is only a partial similarity in the behaviour of these two sounds. Naccinārkkiniyar explicitely states that the shorter *u* is not written with a dot.[2]

S. 106 states that *uyirmey* 'syllabic letter' ending is considered as vowel ending. According to both the commentators, the *uyirmey* in the medial position can also be considered as a vowel ending. When interpreted like this, there is a lacuna about the status of the initial *uyirmey* and therefore, they include an implied statement about it, viz, that the initial *uyirmey* should be treated as an initial consonant.

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1. Naccinārkkiniyar here refers to the formation of words as being *iyalyu* (changeless) or *vikāram* (changing). But the definitions of these two terms are not clear. Further, there is no relevance to speak about the word formation and so one has to doubt the genuiness of the statement.

2. It is curious that Pavaṇanti does not refer to the dot with the reference to the shorter *u* but Mayilainātar states that a few write the dot. Pērāciriyar also note the custom of writting a dot over the shorter *u* (Ceyyuḷiyal. S. 8.)

Further, Naccin̲ārkkin̲iyar raises the question whether this interpretation is necessary, since S. 18 of *nūn̲marapu* itself seems to convey all these ideas. He answers it by saying that S. 18 refers to the individual letters alone and this to letters occurring in words.

Both the commentators agree that these four sutras discussed above are the residue of *mol̲imarapu* (*mol̲imarapin̲ ol̲ipu*). This is because of the fact that these sutras like *mol̲imarapu* speak of only individual words and not about the conjunction of two words which is the theme of the *puṇariyal*. Even though, these sutras also deal with the individual words (like the sutras in *mol̲imarapu*) they find a place in *puṇariyal* because they are narrated from sandhi point of view.

7.3. According to Iḷampūraṇar, S. 107 states that *puṇarcci* involves only two words coming together and there is no possibility of the simaltaneous combination of three words. If the three words are to be combined, the first two are combined first and this whole combination is considered as one unit in relation to the third word. There is actually no sandhi between the first and the third word in this case.

Naccin̲ārkkin̲iyar merely states that there is no possibility of more than two words coming together, and his interpretation is identical with Iḷampūraṇar.

Puṇarcci thus consists of two words. The preceding word is called *nir̲utta col* (installed word) and the succeeding is *kur̲ittu varu kiḷavi*. *kur̲ittu varu kiḷavi* is interpreted by Iḷampūraṇar as that which comes with reference to the preceding word. Naccin̲ārkkin̲iyar interprets it as that which

comes to complete the sense of the preceding word. But it is doubtful when two words are juxtaposed, the succeeding word is always coming in for the completion of the meaning of the preceding word. That is why he interpreted S. 111 in a strained manner.

The illustration for the concept of completing the sense of the first word is found in the commentary of the next sutra. The words *muyaṟkōṭu* 'hare's horns' and *uṇṭu* 'exist' cannot occur in *puṇarcci* because the succeeding word *uṇṭu* is not the *kuṟittu varu kiḷavi* as it does not complete the sense of preceding word. The whole statement *muyaṟkōṭu uṇṭu* 'the hare has horns' has no sense in relation to the facts of the world. The words *muyaṟkōṭu* and *iṉṟu* 'not' can however occur in *puṇarcci.* It is also questionable whether the compound *muyaṟ–kōṭu* 'hare's horns' (consisting of *muyal* and *kōṭu*) can be a product of sandhi. Nacciṉārkkiṉiyar does not discuss about this here; but, curiously enough he refers to this kind of *puṇarcci* as *puṇarcciyiyilvaḻi puṇarcci* 'conjunction of words which when joined do not give any sense' in S.111.

It is to be noted that Nacciṉārkkiṉiyar is careful to show that the combination of words is meaningful in the other chapters. He gives instructions, for instance, in the commentary of S. 144, 204 etc that one must take as examples for sandhi only the proper (and hence the meaningful) words.

S.107 further states that there are four types of *puṇarcci* in terms of *eḻuttu*, coming together, viz., vowel plus vowel, vowel plus consonant, consonant plus vowel and consonant plus consonant.

Nacciṉārkkiṉiyar raises the fundamental question whether there can be any *puṇarcci* at all between the two words, since

in speech, sounds occur only in linear succession.[3] It is only after the articulatiion of a sound is completed the succeeding sound is pronounced. In that case the question naturally arises whether there can be any *puṇarcci* between these sounds, one whose articulation is already completed and the other which is being pronounced. In this case, there can only be succession and not simultaneity and hence there is no *puṇarcci* between these two sounds. He himself answers thə the question thus: Both the speaker and the hearer feel that the sounds in question are produced simultaneously without any discontinuity and hence the occurrence of *puṇarcci.*

The *puṇarcci* takes place when the final *eḻuttu* of the preceding word and the initial *eḻuttu* of the succeeding word come together. The words coming together can be (1) a noun and a noun, (2) a noun and a verb, (3) a verb and a noun and (4) a verb and a verb. (S.108).

Words in Tamil are classified into four categories, viz. *peyar* 'noun', *viṉai* 'verb', *iṭai* 'particles' and *uri* 'indeclinables'. The commentators, Iḷampūraṇar and Nacciṉārkkiṉiyar, state that only the former two categories are referred to in *puṇarcci* because the other two categories cannot occur free.

As a result of *puṇarcci*, there may be change or no-change (*iyalpu*) of the sounds involved. The changes are of three kinds. They are referred to in the next sūtra (S. 109) as *mey piṟitu ātal* 'one form changing to another' (which is almost equivalent to assimilation), *mikutal* 'addition' and *kuṉṟal* 'loss'. The term *mey* in *meypiṟitātal* generally interpreted as referring to a consonant, but it is also possible to interpret it as referring to the form of any phoneme. In that case, it can also refer to the assimilation of vowels as well as

3. Nac. eḷuttu. P. 75 (S. 108).

consonants. Both the commentators agree that all these changes can occur in one and the same juxtaposition of words.

S. 110 states that even if the succeeding word and the preceding word occur with attributives, they can be taken in sandhi. A word or a sequence of words preceding a noun or a verb in a construction can be taken as *aṭai* 'attribute'. The commentators, however, interpret *aṭai* to refer to (the first parts of) *ummait–tokai* 'co-ordinate compound' and *irupeyar oṭṭu paṉput tokai* 'appositional compound'.

7.4 Tolkāppiyar is of the opinion that there are cases where two words become so fused beyond recognition that they cannot be ordinarily explained in terms of the sandhi changes (S. 482). Such fusions are called *marūu*. But ,after the fusion of this type had occurred, the whole group can be taken as one unit and can be juxtaposed with other words or units. And such juxtaposition is capable of being explained in terms of the ordinary rules of sandhi. S. 111 deals with this type of sandhi.

While interpreting this sutra, Iḷampūraṇar considers only the grammatically accepted metathesised forms as *marūu.*

It may be recalled here that Naccinārkkiṉiyar interprets the term *kuṟittu varu kiḷavi* as that which comes to complete the sense of the preceding word and thus brings in the concept of meaning in *puṇarcci* (7.3). This raises a difficulty when the two words occur in close proximity, while they do not give any sense (when they are not immediate constituents). In order to get away from this difficulty, Nacciṉārkkiṉiyar interprets the phrase *maruviṉ tokuti mayaṅkiyal*

moḻi found in S. 111 as combination of *maru moḻi* and *iṉ tokuti mayaṅkiyal moḻi*. *maru moḻi* refers to the fused words and *iṉ tokuti mayaṅkiyal moḻi* are words which stand juxta posed in harmony without giving any sense, but which are later interpreted as connected with the relevant words to give sense.

7.5. *Puṇarcci* can be classified into *vēṟṟumai* 'case relation' and *alvaḻi* 'non-case relation' based on the relationship existing between the preceding and the succeeding words. Sometimes, during this process of *puṇarcci*, increments may occur in between these two words. S. 112 states that this increment may be either an *eḻuttu* or a *cāriyai*. Iḷampūraṇar defines neither of the two categories but Nacciṉārkkiṉiyar defines *cāriyai*[4] as that which crops up (as a unifying agent) in order to allow two individual words to come together. However, none has differentiated between the two. We can roughly state that *eḻuttu* is the homorganic plosive or nasal inserted in between and *cāriyai* is any other empty morph.

In S. 113, Tolkāppiyar lists the six case suffixes. In the commentary of this sutra, the authors enumerate the various constructions involved in non-case relationships.

S. 114 is about the internal sandhi which involves case sings having initial plosives which may be doubled when required. The case signs involved are *ku* (dative) and *kaṇ* (locative).

S. 115 states that the initial *a* of the sixth case sign (*atu*) disappears when it occurs before a word ending in *a*.

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4. Nac. eḻuttu. P. 82 (S. 118).

7.6. S. 116 deals with the tactics of case formation and states that nouns are followed by case markers.

S. 117 classifies the noun into *uyartiṇai* 'superior class' and *a∴ṟiṇai* 'inferior class' and S. 118 states that *cāriyais* occur after these nouns.

S. 119 lists the empty morphs and S. 120 to 133 explain their allomorphs.

The empty morphs which occur when letters of the alphabet are named, are listed in S. 134 and their distributions are explained in S. 135 to 137. Since all these sutras (S. 116 to 137) belong to grammar, they are not discussed here.

7.7. S. 138 and 139 deal with graphemic sandhi[5]. The former sutra states that when a vowel following *puḷḷi* ending, it loses its independent status and gets fused with the consonant which also loses its status. *Puḷḷi* is taken here as meaning only the consonant ending by both Iḷampūraṇar and Naccinārkkiniyar, but both of them say that it can also refer to shorter *u* in an implied sense. But, Venkatarajalu Reddiar points out that shorter *u* is also a *puḷḷi* ending, because it is also a dotted letter according to S. 105, and in that case, this sutra provides not only for consonantal endings but also for words ending in the shorter *u*[6].

The next sutra (S. 139) states that conversely when the vowel is removed in a syllabic letter, the consonant will assume its old shape of having a dot. This sutra refers to the shape of the consonant only and does not say anything

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5. N. Kumarasamy Raja 'Tolkāppiyar's concept of Morphophonemics'. P. 6.

6. Venkatarajalu Reddiar. op. cit. P. 105.

about the vowel. Naccinārkkiniyar has an answer for this. He defends Tolkāppiyar by saying that the question does not arise, since Tolkāppiyar nowhere describes the shape of the vowels.

S. 140 is about glides. Its content has already been explained (See 2.8 P. 33) in this treatise. We can add the following details provided by the commentators. Iḷampūraṇar states that the glides are *y* and *v* and that the former occurs after *i*, *ī* and *ai* endings and the latter elsewhere. As an addition to this, Naccinārkkiniyar states that both the glides occur after *e* ending. This is found in Vīracōḻiyam[7] and Nannūl[8].

The next two sutras deal with constructional homonymity. The same sequence of words may have to be interpreted in two different ways, depending upon its mode of pronunciation. This has already been explained (see 1. 3. P. 6). There is no provision in the writing system to indicate the semantic difference, according to S. 142. Though the ambiguous term *eḻuttu* is used in both the sutras, the term *icai* occurring in S. 141 makes it clear that in that sutra, the reference is only to speech.

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7. Vīracōḻiyam. S. 13.
8. Nannūl, S. 161.

Eight. TOKAIMARAPU

8.1. *Tokai marapu* is the fifth chapter in Tolkāppiyam. The term *tokaimarapu*, according to the commentators, means the grouping together of morphophonemic rules involving twenty four final sounds which otherwise have to be stated in various sutras individually in the succeeding chapters. Iḷampūraṇar illustrates this in the second sutra (S. 145) by saying that, here, the author has grouped together rules which otherwise have to be expressed in forty eight sutras. Since there are twenty four endings and two types of *puṇarcci* (i. e. case relationship and non–case relationship), these rules would have to be expressed in forty eight different sutras. Naccinārkkiniyar illustrates the same idea in his commentary on S. 155 and 156 also.

According to P. S. Subramanya Sastri[1], the changes in the initial sound of the succeeding word (progressive assimilation) and the coming in of the empty morphs have been

1. P. S. Subramanya Sastri, Eḻuttatikāra kuṟippu uṟai, P. 146.

grouped together in this chapter. This is the justification for the use of the word *tokai* in the title of this chapter. He explains the term *marapu* 'usage or tradition' by saying that the author is also grouping together the theories of ancient authors. He says that it is evident from Tolkāppiyar's use of the terms *e<u>n</u>pa*, *e<u>n</u>ma<u>n</u>ār pulavar*, *mo<u>l</u>ipa* etc which all mean 'It is said'. K. Vellaivarananar is also of the same opinion regarding the term *marapu*[2]. But one cannot agree with this view. The terms *e<u>n</u>pa* (S. 160,) *e<u>n</u>mā<u>n</u>ār* (S. 146, 158), *mo<u>l</u>ipa* (S. 153, 157,159, 170) cited by P. S. Subramanaya Sastri occur only in seven out of the thirty sutras found in this chapter. And in addition, these terms are also used in the other chapters as well.[3]

In the seventh chapter, *uyirmayaṅkiyal*, Tolkāppiyar takes the vowel endings one after another and describes the changes which each ending undergoes, when followed by another word. In *puḷḷimayaṅkiyal*, the eighth chapter, the consonantal endings are treated similarly one after another. *Ku<u>r</u><u>r</u>iyalukarappuṇariyal*, the ninth chapter, deals with the words ending in shorter *u* which are followed by another word. Here in *tokaimarapu* the method of treatment is different. It is not dealing with the sounds seriatim. There are certain rules of sandhi which are applicable to groups of sounds without any reference to grammar (e. g. S. 143, 144 149 etc). Among these, some are based on the syllabic

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2. K. Vellaivaranar, Tolkāppiyam–Na<u>n</u><u>n</u>ūl E<u>l</u>uttatikāram P. 163.

3. Tolkappiyam–E<u>l</u>uttatikāram, S. 1, 3, 4, 6, 9, 11, 19, 20, 21, 23, (First chapter), 53 (Second Chapter), 105, 130 (fourth Chapter), 193, 194 (Sixth chapter), 210, 222, 224, 242, 251, 258, 283, 288, 295 (seventh chapter) etc.

pattern of words (The closed short and long monosyllabic words are referred to S. in 160 and polysyllabic words in S. 145) Some rules are formulated on the basis of lexical classes (words of measurements, weight and number. S. 164 to 170), or grammatical categories (superior nouns. S. 153), second person verbs (S. 151, 152) etc, and there are some more which involve tactical relationship (words having second case – objective relations. S 157), words having instrumental relationships (S. 156).

The title of this chapter *tokai marapu* can be justified not only from the phonological point of view, as has been done by others, but from this points of view also, viz., grammatical categories, tactical relationship etc.

8.2. The first sutra (S. 143) states that the nasal before the stop is realised as a nasal homorganic with the following stop, i. e. as *ṅ*, *ñ*, *n* and *m* respectively before *k*, *c*, *t* and *p*. Iḷampūraṇar interprets the statement in such a way that it is applicable to the nasal ending of the preceding word as well as the nasal increment. Naccinārkkiniyar restricts the rule to the nasal increment. He seems to consider the sandhi change of the final nasal (in the preceding word) as being implied in S. 314 etc. In spite of this fact, the present sutra is not redundant, because it essentially refers to the sandhi changes that the nasal undergoes[4].

Most of the rules in *Uyirmayaṅkiyal* 'chapter on vowel ending' deal with the cases where the first word ends in a vowel and succeeding word begins in a plosive. The changes are mostly in the form of the doubling

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4. Nac. eḻuttu. P. 96.

of the initial consonant of the succeeding word. In the *Tokaimarapu* chapter, mostly the non–plosive initials of the succeeding word are taken into consideration and in most cases there is no–change in Sandhi at all.

A general rule is stated in S. 144 that all the initial non-plosives of the succeeding word undergo no-change when preceded by a word of any ending, whether it is in case or non–case relationship. According to the commentators the preceding word is a noun, ending in any one of the twenty four sounds already described. The specfic sutras coming hereafter are exceptions to this general rule. Naccin̲ārkkin̲iyar makes it clear that this sutra refers to only the sandhi of the succeeding word and not of the preceding word.

Both the commentators mention that a kind of change called *karuvit tiripu*, lit. 'instrumental change' can be included under no-change. The *karuvit tiripus* referred to here are (i) the appearance of glide between the final vowel of the preceding word and the initial vowel of the succeeding word (S. 140), (2) the doubling of the final consonant of the short monosyllabic word before the initial vowel of the succeeding word (S. 160) and (3) the combination of the final consonant with the initial vowel of the succeeding word (S. 138). But they also treat the Sandhi rules given in S. 143, 146, 149 and 150 as *karuvit tiripus.* It is not quite clear as to what this term *karuvit tiripu* really stands for.

There is exception to this rule (S. 115). When the preceding word is a *toṭarmoḻi* words containing more than two *eḻuttus*, in some cases the initial nasal of the following words may be doubled.

8.3. –*ṉ* and –*ṉ* endings are discussed in a few sutras. After words ending in –*ṇ* and –*ṉ*, there is free variation between *yā*– and *ñā*– which are the initials of verbs (S. 146). The sutra does not specify as to which is be taken as basic form, among *yā*– and *ñā*–. The commentators however take *yā*– as the basic form and state that *ñā*– can be optionally derived from that. While interpreting this point, both of them cite only the verb *yā* 'tie'.

With reference to these consonantal endings, Tolkāppiyar makes a general statement in S. 147 that they do not suffer any change in non-case relation sandhi before any word, whatever sound it may begin with. The same rule will apply even in case–relation, when the succeeding word does not begin with a plosive (S. 148).

–*l* and –*ṉ* endings when they are followed by *t*– and *n*– become *ṟ* and *ṉ* respectively, i. e. both *l* and *ṉ* become *ṟ* before *t* and *ṉ* before *n* (S. 149). In the same way, –*ḷ* and *ṇ* endings when they are followed by *t*– and *n*– become *ṭ* and *ṇ* respectively, i. e. both *ḷ* and *ṇ* become *ṭ* before *t* and *ṇ* before *ṉ* (S. 150).

8.4. Tolkāppiyar then takes up the specific classes of words. Amonst them, the class of second person words are taken up first.

S. 151 says that some second personal verbs whether ending in a vowel or a consonant, before a plosive suffer no–change and in some other cases the following plosive is optionally doubled. Tolkāppiyar does not define and distinguish the environment where the compulsory rule will operate and where the optional rule will. Naccinārkkiniyar speaks of

compulsory doubling in monosyllabic words like *tu* 'eat' and *no* 'suffer' etc and optional changes of *l* into *ṟ*. Both of them may belong to post-Tolkāppiyam period.

It is worth considering whether the no-change rule can be assigned to the second person verbs of the indicative mood and the optional change to the imperative mood. There are a few imperative verbs which have the free variation in following the no-change rule and the optional rule, probably because the two different forms have come into the standard language from different dialects. All cases of such *uṟaḻcci* 'variation' have to be explained in terms of this dialectal variation.

Second person words ending in *-au*, *-ñ*, *-n*, *-m* *-v* and shorter *-u* do not follow the above rule completely (*muṟṟat tōṉṟātu*) (S. 152). The commentators state that the term *muṟṟa* 'completely' implies that the above words will follow the previous rule after getting an enunciative *u*. According to Venkatarajulu Reddiar, this sutra simply lists the sounds that cannot occur finally in the second person. He justifies the significance of this meaning thus: "(1) *au* and *m* do not occur as second personal endings in Tamil. (2) Shorter *u* when followed by another word becomes short u. (3) All the four *v* ending words are not verbs and (4) Words ending in *ñ* and *n* are only verbal nouns and not verbs."[5]

How can *au* and *m* alone be taken as referring to personal endings and not other endings referred to in this sutra? Words ending in *ñ* and *n* are verbal nouns according to Tolkāppiyar (S. 296), but they should be derived from verbal

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5. Venkatarajulu Reddiar. op. cit. PP. 113 – 116.

roots. In this case, there is no difference between verbs and verbal nouns. There are two words ending in *au* (S. 70) and both are considered to be verbal roots. Hence, he seems to be wrong in his interpretation.

8.5. Tolkāppiyar then takes up another group, i.e. *uyartiṇai* 'the superior class of nouns' ending in any consonant or vowel, and states that they suffer no-change in whatever type (*ellā vaḻiyum*) that they occur (S. 153). The commentators interpret *ellā vaḻiyum* as referring to (1) the two types of relationship in sandhi, viz. case and non-case relationships and (2) all the phonological enviornments, i. e. all the sounds that can occur as initially of the succeeding word. Since S. 144 says that the semivowels and nasals if they are preceded by any of the finals that can occur, suffer no-change, one may raise the question as to why semivowel and nasal initials are also included here. Naccinārkkiniyar explains the scheme of Tolkāppiyar according to which whenever not specifically mentioned otherwise, the general reference to words will mean only the words of *a:ṟiṇai* 'inferior class'. Hence, the sutra is not redundant in any way. According to *collatikāram*, *uyartiṇai* 'superior class' includes the first person (S. 647. 687, 693). But these first person forms are not contemplated here, possibly because Tolkāppiyar thought that they may not occur as the first word in sandhi except in poetical inversions.

Of these words, those endings in *–i* do not follow the rule of no-change, i. e. the plosives following them double (S. 154). Since no restriction is placed, one must take both the relationships of case and non-case. The commentators give only words beginning with the plosives as the succeeding word. The words given by them as the preceding words are

eṭṭi, *kāviti* and *nampi* which are titles conferred to persons of distinctions. Iḷampūraṇar does not give examples of non-case relationship but Naccinārkkiniyar gives them.

Naccinārkkiniyar thinks that this rule is applicable in some cases to the *-ai* ending also. But that must be a post-Tolkāppiyam usage unless it is established otherwise. Because of the term *tiripuṭan uṭaittē* 'it has also a possiblity of change' in the sutra, Venkatarajulu Reddiar points out that this rule cannot be extended to the *-ai* ending.[6]

When the preceding word is a noun common to both the superior and inferior classes (*a:ṟiṇai viravup peyar*), it has a possibility of not having any change as well, (*iyalpumār uḷavē*. S. 155). The suffix *-um* (as well) induces the commentators to infer that there are words of this class which undergo change which are described under each one of their repective endings in the following chapters.

8.6. One would have expected that the rules about the *-i* ending would continue to be stated for non-case relationship also. But there are two sutras (S. 156 and S. 157) which deal with the third case relationship and the second case relationship in between the sutras relating to the rule of *-i* ending on one hand and *-i* and *-ai* ending on the other hand, for non-case relationship.

S. 156 deals with all the possible endings of the preceding word, when followed by initial plosives which are said to be doubled in the subsequent chapters. The question of the doubling of the plosive after a consonant occurs only with the

6. Venkatarajulu Reddiar. op. cit. p. 117.

reference to the semivowels, *y* and *v*. No example for *ḻ* is given by the commentators. But one can give *pūḻk kōṭpaṭṭāṉ* '(Some one) was caught by the *pūḻ* (a bird).'

The phrase used in this sutra to indicate the thrid case relationship is *tammiṉ ākiya toḻiṟ col. Toḻil col* stands for the verb and *tammiṉ ākiya* means for the verb or the action there, should have been caused by them (i. e. the agents). The word *tammiṉ* shows the agent (s) as distinguished from the subject involved in the action. It is in the third case relationship. *iṉ* stands here for the instrumental case. The agent in the example given has no case sign and the instrumental sense is implied therein. In the compound form the word *paṭu* is preceded by a verbal noun *kōḷ* 'being captured'. This is a compound of a noun and a verb. This compound *kōṭpaṭu* is preceded by the agent which can be compounded with *kōḷ*. If the example is a phrase the last word will be *koḷḷa*, an infinite form instead of the verbal noun form *kōḷ*. In that case, the subject of the verb in the infinite will be the agent whilst the subject of the second verb will be any one undergoing the result of the first verb. Perhaps the compound constructions require the usual doubling and the phrasal constructions follow the no-change rule.

For emphasising the rule of no-change, the phrase *meymmaiyāka* has been used in the sutra: the preceding word remains as it is (in its own nature) as against *uraḻcci* 'optional change'. "There are cases where any one of the two rules apply in the respective places. This limitation should be taken care of when the case relationship is discussed". This is the meaning of the last two lines of the sutra according to Iḷampūraṇar. But Naccinārkkiṉiyar construes the

phrases of this sutra in a different way. However, the essence of the interpretation is not different. The meaning according to him is as follows: "That since these rules of no-change or optional alternation operate we must not bring in, the rules of compulsory doubling which is asserted in the subsequent chapters with reference to the words having case relationship."

In both the cases of compound or phrase, the agent will have no case sign and therefore will be treated as forming with the subsequent word, a compound implying the third case relationship. The commentators however, suggest that *nāy* 'dog' and *puli* 'tiger' follow the rule of no-change. But this does not sufficiently define the enviornment or explain the complementary distribution of these words. The examples *pāmpu kōṭpaṭṭān* and *pāppuk kōṭpaṭṭāṉ* 'he was caught by snake' given by the commentators seem to justify the suggestion thrown out in the two rules.

The next sutra (S. 157) deals with the exceptional changes which occur in the juxtaposition of two words where the preceding word is standing in relation to the object, i. e. second case relationship with the succeeding word. These cases are (1) the coming in of the plosive instead of the nasal which should occur according to the general rule, (2) similarly the coming in of the nasal instead of the plosive, (3) the occurrence of doubling in the place of no-change, (4) no-change where the occurrence of a vowel is expected, (5) no-change where the occurrence of an increment is expected, (6) the occurrence of case suffix before an increment, (7) the occurrence of doubling in the place of augment, (8 and 9) the inevitable occurrence of second case suffix *-ai* after *uyar tiṇai* 'superior class' and *viravuppeyar* 'common noun' and

(10) the occurrence of no-change instead of the final consonant of the preceding word. This list is not exhaustive and the sutra states that further changes as enumerated here may also occur.

Because the sutra follows the previous one where the succeeding word is said to be a verb, Naccinārkkiniyar is certain that this sutra also applies when the second word is a verb. Iḷampūraṇar is not so sure. Dr. P. S. Subramanya Sastri brings the phrase *toḻiṟcol mun̲ varin̲* from the previous sutra into this sutra.[7]

The sandhi changes applicable for all case relationships are explained in the following chapters in Tolkāppiyam. The second case relationship have some special rules which are different from the rules that are applicable to all the cases and they are listed here.

8.7. S. 158 and 159 deal with non-case relationship sandhi when the preceding word ends in *-i* or *-ai.* These endings have three different rules – viz. (i) the rule of no-change, (ii) the rule of compulsory doubling of the succeeding plosives and (iii) the rule of their optional doubling. The conditions for these rules not given. The commentators state that by implication that the sandhi changes of *vin̲aiccol* 'verbs', *itaiccol* 'particles' and *uriccol* 'indeclinables' of these endings can also be brought under this rule but we feel that they can be brought under the miscellaneous exceptions.

Iḷampūraṇar has taken into consideration only the subject – predicate constructions for the no-change rule and

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7. P. S. Subramanya Sastri. Op. cit. p. 160.

the optional rule. This is because non–case relationship, according to him, refers to mostly the subject–predicate constructions (S. 113). In the example given, it will be seen that the optional rule occurs when one has two short open syllables as already mentioned. Eleswhere the no-change rule will occur: but this latter rule seems to be negatived by the example *karai* 'bank' given by Iḷampūraṇar for the no–change rule. Naccinārkkiniyar gives as *nārai* 'crane' instead of *karai* and in view of this fact, Iḷampūraṇar's commentary also must be taken to have *nārai*; if this were done, the rule will not be negatived. For compulsory doubling of the coming plosive, Iḷampūraṇar gives as examples *paṇput tokai* 'compound of quality base and noun'; here also, the second example is found as *pulik koṟṟaṉ* '*koṟṟaṉ* being like tiger' which will be a case of *uvamait tokai* 'simile compound'. Probably, Iḷampūraṇar gives only *pulaik koṟṟaṉ* 'the mean *koṟṟaṉ*' which will be *paṇput tokai*. The *uvamait tokai* is not taken as word, occurring with any key word and therefore not forming one unit. It is so taken only indirectly. Therefore, he does not give examples of simile compounds. In view of this, *pulik koṟṟaṉ* should be only *pulaik koṟṟaṉ*.

Tolkāppiyar refers to some words of *–i* and *–ai* endings which have locative significance though they are not words implying or manifesting the locative case sign (S. 159). They are referred to by their initial and by their final letters.

Initial.	Final.
1. Demonstratives *a–*, *i–*, *u–*	*–i*
2. Interrogative *e–*	*–i*
3. Long demonstrative	*–ai*
4. Interrogative *yā-*	*–ai*

When any one of them occurs as the preceding word, there are places where there is compulsory or optional doubling of the plosive following them. These are cases of non-case relationship. *atōḷi*, *itōḷi*, *utōḷi* and *etōḷi* are examples for the first two groups where the plosives compulsorily double. *atōḷi* is explained by Naccinārkkiniyar as meaning that place. For the optional rule, they give for the first group *avvaḻi*; 'that way', *ivvaḻi* 'this way' etc. As for the *–ai* ending *āṇṭai* 'there', *īṇṭai* 'here' etc get the plosive doubled. For optional rule, Iḷampūraṇar gives *āṅkavai*, *īṅkavai* etc. But he himself states that they are not uniform but varying. Therefore, he leaves it to the reader to find the proper examples. So, Naccinārkkiniyar suggests that words similar to *āyiṭai*, *īyiṭai* etc might have occurred in ancient times to illustrate the optional rule. Here is, therefore, a case where certain usages contemplated by Tolkāppiyar had ceased to be current even by the time of Sangam literature from which the commentators would have easily quoted if there were any.

Venkatarajulu Reddiar feels that *atōḷi*, *itōḷi* etc are really ending in a consonant *–ḷ* with an augment *i*.[8] Iḷampūraṇar and Naccinārkkiniyar show that these words are ending in *–ḷ* as *atōṭ kōṇṭāṉ*, *itōṭ kōṇṭāṉ* etc in S. 398. Therefore, one gets two alternate forms one with *–i* ending and the other without *–i*. Naccinārkkiniyar, as pointed out by Venkatarajulu Reddiar refers to *itā* as a dialect word[9]. In modern usage, one gets the form *atō*, *itō* etc when the final *–i* and *–ḷ* have disappeared. *itā* is therefore a dialectic variation of *itō*. It is difficult to say which is the original, the *–ḷ* ending or the *–i* ending.

8. Venkatarajulu Reddiar op. cit. p. 120.
9. *cīvakacintāmaṇi*. 1232

The compound *cuṭṭuc ciṉai* occurs in sutra. *ciṉai* means an organ or a part. Therefore, the commentators explain the compound as referring to the letter or sound which is a part (probably of the word) and which is the demonstrative base. They do not explain of which whole this demonstrative is apart. Venkatarajulu Reddiar explains that Tolkāppiyar looks upon the long vowel as a whole and the short vowel as its part and he refers to S. 427, where the same phrase is used.[10] Tolkāppiyar thinks that the demonstrative base is the short letter and explains the longer allomorph as the lengthening of the short sound (S. 204, 208 etc). If the short vowel is only a part of the demonstratives, it is not clear why Tolkāppiyar should speak of the lengthening. These demonstrative and the interrogative bases do not by themselves constitute words. They always appear as bound forms either as an external part in cases like *a–k–kutirai* 'that horse' etc or as an internal part in words like *avaṉ* 'he' etc. It is this characteristics features of these bases appearing in bound forms as parts of words, that is, probably referred to by the term *cuṭṭuc ciṉai.*

8.8. Certain rules applicable to words of certain syllabic structures are discussed after this. The sutra (S. 160) refers to long closed syllabic words and the short closed syllabic words. Both the commentators take them as closed long monosyllabic words and closed short monosyllabic words The long syllabic words include not only long monosyllabic words but also words of more than one syllable which naturally will have more than two units of length, on the basis of S. 50. Nacciṉārkkiṉiyar instead of explaining it in this way, reads an implication to bring the

10. Venkatarajulu Reddiar. Op. cit. p. 120.

other types syllabic structures. Here the sandhi rule is that the consonant following long the syllabic word disappear and the consonant following the short syllabic word will double.

This doubling occurs mostly when the succeeding word begins in a vowel. It is made clear by the next sutra.

This way of interpretation is not followed by the commentators, but they rely upon the disorder found in enumerating the case sign in the next sutra. The commentators feel that the sutra always applies to the unaltered form (*iyalpu*) only and not to the altered form (*viti*). Therefore, they feel the sutra cannot apply to *nam* 'us' *tam* 'them' etc., whose unaltered forms are *nām* 'we' *tām* 'they' etc. But this restriction seems to be unnecessary.

The sutra does not define the environment in which the consonant is lost after syllable. Iḷampūraṇar states that it happens only when the following *t* or *n* is changed according to S. 149 and 150. Naccinārkkiniyar states that this disappearance of the consonant relates to *n*, *ṇ*, *m*, *l* and *ḷ*. This sutra has to be read in relation to other sutras. The doubling of the consonants relate to those other than *ṉ*, *ñ* and *ḻ*. The consonants double only when the succeeding word begins in a vowel.

S. 161 refers to the exception to the rule according to which words which have already get their initial syllable shortened do not double their final consonant before the increment *a* which is followed by the fourth case or the sixth case sign. *nam* + *ku* > *nam* + *a*+*ku* > *namakku* instead of **nammakku*. And likewise, *nam* + *atu* > *nam* + *a* + *atu* > *namatu* instead of **nammatu*.

num 'your' also behaves the same way (S. 162).

8.9. The exception to the rule which deals with certain endings which get the augment *u* at their end is given in S. 163. The sutra states that the augment *u* does not occur when the succeeding word begins in *y*– or any vowel. Venkatarajulu Reddiar objects to the examples of *uriñ anantā* and *uriñ ātā* given by the commentators because *uriñ* is in the imperative mood. Because, *ñ*, *n*, *m* and *v* do not occur as the endings of verb in the imperative mood, according to his interpretation of S. 152.

8.10. The remaining sutra deal with words denoting numbers, weights and measurements since all these follow the same pattern.

The words denoting the weights and measurements begin only in either one or other of the nine sounds : *k*, *c*, *t*, *p*, *n*, *m*, *v*, *a* and *u* (S. 170).

It is significant that *ā* is not mentioned in this list. *āḻākku* 'one eight of a measure' is now in current usage but in the inscriptions one has the form *aḻākku* which might have been the form even in the age of Tolkāppiyam[11]. The commentators give the form *āḻākku* only.

S.164 prescribes the *cāriyai* –*ē* between these words when combining together. This *cāriyai* will not be added when the *arai* 'half' (S. 165). When the succeeding word is *kuṟai* 'deficiency' the initial *k*– in that word gets doubled, following the general rule, in case relation sandhi (S. 166). S. 167 to S. 169 deal with the occurrence of various *cāriyais*.

11. Tindivanam Inscription of Virarajendara.

The form *kuṟṟiyalukarakku* occurring in S. 167 is curious. This is from *kuṟṟiyalukaram* plus *ku*. The forms ending in *-m* take the increment *attu* when followed by case suffixes, but here the case suffix *-ku* is added without the increment and hence the form *kuṟṟiyalukarakku*. It is to be noted that there are three instances of this type: one in Tirukkuṟaḷ (*nilakku*: *nilam+ku*) 'to the land' 570) one in Maṇimēkalai (*maṉakku* :*maṉam+ku*) 'to the mind' 21.30) and one in Cilappatikāram (*kulakku* :*kulam+ku*) 'to the clan' 24–1–10) and none in other Sangam literature. However, Nacciṉārk-kiṉiyar has noted that there is another reading, *kuṟṟiyaluka-rattiṉ* for this form *kuṟṟiyalukarakku*. But it is not clear why he has not preferred this form.

8.11. S. 171 is the general exception to the rules mentioned in this chapter. It is stated therein that words of different endings behave in sandhi in various ways according to the rules specified. Exceptions, if any, can be traced in.

Here the commentators list the exceptions to the rules discussed in the body of the chapter. For instance, S. 152 lists the sounds that can take the enunciative *u* in imperative. Iḷampūraṇar says here that the sound not included in this sutra can also have this change. In this way, he tries to point out the exceptions to the rules given in *Tokaimarapu*. Nacciṉārkkiṉiyar has taken some of them and explained them under the respective sutras.

8.12. It is curious that after the sutra dealing with the general exception, there should occur another sutra stating that the word *yāvar* loses the medial syllabic letter *–va–* when it occurs after an epicene plural word and *yātu* gets the syllabic letter *-va–* in the middle when it occurs

after non-human singular word. This is considered to be *marūu* change. It is impossible to have a sutra after the statement of the general exception to this chapter. And according to S. 482, *marūu* forms cannot be explained in sandhi. Therefore, one has to assume either that the sutra was wrongly copied here from somewhere else or that it is a later interpolation, first written perhaps as a marginal note and then wrongly copied by the later writers as part of the work. Anyhow, it should form part of Tolkāppiyam at least during the age of Iḷampūraṇar.

Nacciṉārkkiṉiyar distinguishes this *yār* (coming from *yāvar*) from *yāar* (found in S. 695) which is common to all the genders of *uyartiṇai*.

Venkatarajulu Reddiar states that *yāvar* mentioned here is a relative pronoun[12]. This could not have been the case in Tolkäppiyar's age. This kind of relative constructions is of later usage due to the Sanskrit influence. Venkatarajulu Reddiar also raises the question as to why in both the cases the original form should not be taken as possessing the syllabic letter *-va-* which in both the words disappeared uniformly.

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12. Venkatarajulu Reddiar. op. cit. p. 123.

Nine. UYIRMAYANKIYAL

9.1. *Urupiyal*, the sixth chapter deals with the distribution of the empty morphs listed in *Puṇariyal* and stem allomorphs when they take case signs. Since they belong to morphology rather than to phonology, they are not discussed here.

9.2. *Uyirmayaṅkiyal* and *Puḷḷimayaṅkiyal* though treated as two separate chapters form one unit because the general exceptions to the rules in those chapters are stated at the end of *puḷḷimayaṅkiyal* and the sandhi rules in *puḷḷimayaṅkiyal* are linked to that of *uyirmayaṅkiyal*. For instance, the behaviour of the word *āṇ* 'a tree' in sandhi is stated to be similar to the word *arai* 'a tree' (S. 304). Likewise, *illam* 'a tree' too behaves like *vicai* 'a tree' in sandhi (S. 313) and so on.

9.3. In *uyirmayaṅkiyal*, vowels are taken seriatim. First, rules are given for non-case relationship when the succeeding words begin with plosives, nasals, semi vowels and vowels in that order. In all these cases, the change occurring in the initial of the succeeding word is dealt with. Cases where no-changes take place and a few other special cases are given next. The case relationship is taken up at the end.

This is the general pattern. Tolkāppiyar also tries to point out that the general rule in all these cases is only one, that is, the doubling of the coming plosives. Instead of generalising thus in the beginning itself, he leaves it to the student to do so. But, he forcibly brings this conclusions to the mind of the student by the method called *māṭṭēṟu* 'linkage'. It means defining a rule with reference to a particular ending and if the same rule applies to other endings, the rule there also is said to be identical or similar to the one already explained with reference to the endings.

The rule for *-a* ending is first stated for non-case relationship (S. 203) and when coming to discuss *-ā* ending, the sutra states that *ā* behaves like *a* (S. 221). *-ī* ending in non-case relationship is similar to *ā* (S. 249). So also *ū* is similar to *ā* (S. 264), *ē* is like *ū* (S.274) and *ō* is like *ē* (S. 289). It seems that the long endings are based on previous long endings. In that case, the sutra *ūkara iṟuti ākara iyaṟṟē* '*ū* ending is like *ā*' (S. 264) should have been *īkara iyaṟṟe* 'like *ī* ending, and not *ākara iyaṟṟe* 'like *ā* ending'.

The initial plosives of the succeeding word get doubled in non-case relationship sandhi when it is preceded by a word ending in *-a* (S. 203). Even in case relationship sandhi, the same rule is stated to be operative (S. 216). In the case of all other vowel endings except *i* which is discussed in the previous chapter of Tolkāppiyam (S. 158), the same sutra is repeated (S. 225, 252, 259, 266, 276, and 292). With reference to the taking of the empty morphs *attu* and *iṉ*, certain other words with different endings are also linked together. There is a kind of oxymoron in those sutras as can be seen here: *maḻai* 'rainy season' behaves like *vaḷi* 'season of wind' (S.289), *veyil* 'summer or sun shine' behaves like *maḻai* (S.377)

and *iruḷ* 'darkness' 'behaves like *veyil* (S.302). So also the sutras 243, 262, 278, 282 and 313 are linked together because they take a nasal sound in sandhi.

There is another linkage where the rules of the various endings are linked to the various rules already enumerated in *urupiyal* which refers to their occurrences with case signs. In all these, the phrase *urupiyal nilaiyum* 'same as that when it is followed by a case sign' is repeated (S.220, 253, 263, 281, 294, 320, 322, 324, 352 and 388). S. 283, 304 and 336 are linked, as they are referring to the addition of the augment *am*. Likewise S. 365 and 386 are linked.

9.4. It remains therefore for us to note only the rules applicable to specific words.

S. 204 discusses the case of sandhi where the initial plosives of the succeeding words are doubled when preceding by words ending in *–a*. The next sutra states that the initial will also get doubled when preceded by the demonstrative *–a* S. 206 and 207 speak about the appearance of *v* after demonstrative when followed by either semivowels or vowels. The demonstrative *a* will be lengthened only in poetry. The commentators give only cases of *a* followed by a word beginning with a vowel. They state that this lengthening will take place even when they are followed by a nasal or semivowel; but no example has been given. It has to be stated in passing that in Malayalam, this is true.

In the word *cāva* 'to die' the final syllable is lost in a few cases (S. 209).[1] When that happens, the general rule of the doubling of the plosives will hold good.

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1. *cākkutti* 'wounded to die' Kalittokai. 105.35.

The next sutra (S. 210) is giving exceptions to the rules of doubling. In the vocative case, there is naturally a pause after the noun; so also there is a pause after a finite verb. The *viyaṅkōḷ* 'Optative' also is a finite verb, and *amma* which is more or less like the word 'hallo' in English and which is according to S. 212 may become lengthened has also a pause following it. All neuter nouns ending in *-a* (*pala*, *palla* 'many'; *cila* and *cilla* 'few' *uḷḷa* 'those which are' and *illa* 'those that are not' S. 653.) when they are used in subject-predicate construction will also have a pause. It will be therefore impossible to expect any intimate contact being developed between these words and those which follow them. As a result, there is really no sandhi and the rule of doubling of the plosive does not apply. The verbal participle on the pattern *ceyyiya* and the relative participle on the pattern *ceyta* also behave like the other words mentioned here. It is not clear whether it was due to the anaolgy of the other forms mentioned above or for any other reason that a pause is developed after these. *a<u>n</u><u>n</u>a* 'like that' is also on the pattern of the relative participle.

vi<u>n</u>aiy eñcu kiḷavi 'verbal participle' mentioned in S. 204 should be taken as referring to *ceya* pattern of verbal participle only, as the other patterns have been separately referred to in S. 210 as behaving differently.

Tolkāppiyar's qualification of *viyaṅkōḷ* as *ēval kaṇṇiya viyaṅkōḷ* is explained by Iḷampūra<u>n</u>ar as referring to two kinds of optatives; one which implies command and the other which does not. But Naccि<u>n</u>ārkki<u>n</u>iyar holds that the command is always implied in *viyaṅkōḷ* and therefore the phrase *evalkaṇṇiya* is only explanatory rather than a determining or restrictive qualification.

The last three statements about *ceyyiya*, *amma* and *pala* in S. 210 are the subject matters of S. 211, 212 and 213 respectively The next sutra (S.211) speaks of the loss of the final syllable in *vāḻiya*. The words *cēyaveṉ kiḷavi* in this sutra is taken by Iḷampūraṇar as qualifying the word *vāḻiya* and so he gives the meaning as 'the prayer or blessing is for a life reaching very distant time'. But Nacciṉārkkiṉiyar has a different reading. He points out that the words, which he reads as *ceyaveṉ kiḷavi* refer to the pattern of the word *vāḻiya*. If the pattern suggested here is correct, the form should be only *vāḻa* and not *vāḻiya* and hence Nacciṉārkkiṉiyar's explanation is not convincing. But there is one point here that the optative form is really in the form of the infinitive of *ceya* pattern according to some theory.[2] Since no mention is made of the initial sound of the word that follows, it may be taken as a general rule applicable to all environmets.

pala 'many' and *cila* 'few' are said to be getting their ending lengthened in verse. The verse here may be taken as referring to the literary usage which conserves older usages. *palāam* and *cilāam* are given as examples (S.212).

The sutra that follows speaks of these *pala* and *cila* standing as *pal* and *cil* and getting their final *l* changed into an alveolar plosive *ṟ*. The loss of the final-*a* has necessarily to be implied. This happens only in the redupli-cated forms (ex. *paṟpala* and *ciṟcila*). Venkàtarajulu Reddiar states that the implication of the loss of the final-*a* need not

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2. Caldwell. R. 'A comparative grammar of the Dravidian languages' P. 538.

be read into this sutra. According to him, the *l* which changes into *ṟ* is the syllablic letter *la* and he quotes S.356 where *l* means only the syllabic *la*[3].

The next sutra (S. 215) states that *pala* and *cila* will optionally have doubling of the plosives in their reduplicated forms. Hence, this rule is stated here in addition to what has already been mentioned in the previous sutra. The commentators in this context explains the sandhi changes in these words when they are followed by other nouns in a different manner which poses some query. They point out that the forms of these words are vowel endings as *pala* and *cila* and speak of the dropping of the final vowel in the process of alternation. But *pal* and *cil* themselves will give us the resulant forms.

9.5. S. 217 states that in sandhi a nasal comes in after the names of the trees ending *-a*. This nasal according to S. 143 will change into the corresponding homorganic nasal of the following plosive. There is another way of looking at it. The original ending may be nasal, probably, *m* or *ṉ*, according to S. 62. There is a tendency for the final nasals to disappear. It is because of this, that in a number of words such *ṉ* or *m* has disappeared and accordingly the vowel ending words seem to have grown in number.

Most of the names of the trees whatever be their endings either get a nasal at the end or *am* in the sandhi.

-ā ending:	*yā*, *piṭā*, *taḷā*	S.229	*am*
	mā 'mango'	S. 231	*ṉ*

3. Venkatarajulu Reddiar, Op. cit. P. 137.

– *i* ending:	*uti*	S. 243	*m*
	puḷi 'tamarind tree'	S. 244	–*am*
– *u* ending:	*oṭu*	S. 262	*m*
– *ē* ending:	*cē*	S. 278	*m*
– *ai* ending:	*vicai*, *ñemai* and *namai*	S. 282	*m*
	pa<u>n</u>ai 'palmrya, *arai* and		
	ā virai	S. 283	*am*
– *ṇ* ending:	*āṇ*	S. 304	*am*
– *m* ending:	*illam*	S. 323	*m*
– *<u>n</u>* ending:	*eki<u>n</u>*	S. 336	*am*
– *r* ending:	*ār*, *vetir*, 'bamboo'		
	cār and *pīr*	S. 362	*am*
	pīr	S. 365	*am*
– *ḻ* ending:	*kumiḻ*	S. 386	*am/m*
and names of trees ending in shorter *u*		S. 415	*am*

Since the word *illam* itself ends in a nasal, it will be difficult to bring this along with others unless one contemplates the loss of–*m* and the appearance of the nasal again in sandhi. Thel oss of -*m* in this case is probably implied by S. 310.

One may assume that the more ancient forms are –*am* and that at a later stage this *am* becomes reduced to *m* and that finally even this nasal disappears leaving the word ending in a vowel, a consonant or a shorter *u*.

9.6. S. 221 gives the rule for neuter nouns ending in –*ā*. Tolkāppiyar extends the same rule to the verbal participle of the pattern *ceyyā* (S. 222). The exceptions to the rule of doubling are listed in S. 224. The words *ā* 'cow' and *mā* 'animal' in non-case relationship do not get the doubling rule

because they occur as subject and therefore with a pause. The vocative case, the plural of the inferior nouns, the imperative ending with the morpheme *miyā* and *yā* occurring as a singular and plural and the first person finite verb occurring with *–ā* as an interrogative, all of these do not get the doubling of the plosives because of the pause after them.

There is also another sutra (S. 231) about *mā* and *ā* which first states that they behave like *yā*, *piṭā* etc in getting nasal at their end or getting the following plosive doubled. The sutra further states that in the above cases the plosive and the augment *a* which will come in according to S. 226 are stated to be not permanent. Then, it concludes by saying that *ā* and *mā* will get an *ṉ*. This curious way of stating the rule is not on the pattern of the other sutras. It may be that because S. 229 lays down only the coming in of a nasal in general terms without any specification, this sutra also lays down the general rule.

āṉ 'cow' gets *a* as in *āṉaney* 'ghee of the cow' (S. 232). S. 269 connects *ū* also with this *ā*. But *ūṉ* 'flesh' is said to take the augment *akku* in the proper place (S. 270). *akku* is realised as *a*. So, *ū* behaves like *ā* even in the other instance not pointed out by Tolkāppiyar.

S. 233 refers to the sandhi of *āṉ* and *pī* 'extrement'. The wording of the sutra is not clear. The commentators interpret the word *tōṉṟi* 'having appeared' found in the sutra as referring to the loss of final *–ṉ* and the word *mika* 'to double' as meaning the doubling of the *p*. So, they give *āppi* as the

resultant form. They further say that *ā<u>n</u>pi* is also found in the language. Venkatarajulu Reddiar says[4] that it is *tirintata<u>n</u> tiripu atu.*

But here *ā<u>n</u>* cannot be interpreted as standing for the original *ā*. Therefore, one must admit *ā<u>n</u>pi* only as Tolkāppiyam form and reject *āppi* as belonging to the post–Tolkāppiyam period[5]

It will be making things clearer, if it is assumed certain words like *mā*, *kā* and *palā* etc are taken as ending in - *am*. In these cases *am* disappears completely and the plosive comes in as in *maram + kiḷai > marakkiḷai* 'branch of tree'. If this is so, *palā + am* according to the rule VIVI+V2> V2V2V2 will be *palāam.* So also *kā + am > kāam.* Since this final *-am* was not recognised as an ending, it disappeared completely except in compounds. The *a* of the *am* stands as a cluster by the side of the long vowel. This occurs after an open syllablic word (CVV) and also after an open disyllabic word consisting of an open short syllable and an open long syllable (CVCVV) (S. 226). Without going to the original form, Tolkāppiyar explains the sandhi as consisting of an augment *a* in addition to the plosives already mentioned in S. 225.

The next sutra (S.227) mentions the exception to the rule. Naccinārkkiniyar differentiates here *irā* 'night' and *irā* which is relative participle of *iru* 'to be' and states that *a* will not come, when the meaning is night. Where he gets this clarification is not made clear by him. *nilā* 'moon' gets an augment *attu* (S. 228).

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4. Venkatarajulu Reddiar. op. cit. p. 140.
5. pu<u>r</u>anā<u>n</u>ū<u>r</u>u. 249–14.

There are certain words which consist of open short syllables followed by open long syllable (CVCVV). Here the long vowel is taken as consisting of two short vowels and he speaks of the last part disappearing when an augment *u* comes in (S. 234). *kan̲ā* 'dream' varies with *kan̲avu*. This is the explanation of the commentators but the sutra is not clear. Can it be that one has here such forms as *kan̲ā* where the final augment *a* is lost? It is not also clear why S. 234 had not been stated after S. 226. In any case, the commentators' interpretation gives two variant forms for a number of words e.g. *irā*∼*iravu* 'night', *cur̲ā*∼*cur̲avu* 'shark' etc. But if two words form a conjunctional compound or a co-ordinate compound the augment *a* will come in the middle as in *irāappakal* 'night and day' (S.223).

9.7. Next the *-i* ending is taken up and the case-relationship is discussed here because the non-case relationship was discussed in *tokai marapu*. It gets the following plosives doubled (S.235). The non-nouns viz., *in̲i* 'now', *aṇi* 'near' and the verbal participles also get the doubling (S.236). *in̲r̲i* 'without this' is the ordinary form to-day. That was also the form in Tolkāppiyar's day. But *i* ordinarily denotes the past tense in such places but here it does not. It looks as though that *i* is coming in on account of the analogy of the verbal participle ending in *-i*. In poetical language which usually retains the older form, one gets the form *in̲r̲u* (S.237). The older form *in̲r̲u* is found even to-day. It is surprising that the word *an̲r̲i* 'without that' which also behaves similarly, is not mentioned here, though its form is contemplated in S.250. The commentators mention that *an̲r̲u* also is implied in the present sutra.

The demonstrative *i* behaves like demonstrative *a* as in S.205, 206, 207 and 208 (S.238). Naccinārkkiniyar gives examples for the long form *ī* followed by a word beginning with a plosive, e.g. *ī kāṇ* 'see here'. Both the commentators give examples for the form followed by a semivowel, e.g. *ī vayiṉ* 'in this place'. Naccinārkkiniyar gives here the example *ītu* 'this' (Cilappatikāram. 19.7) though there is no corresponding form *ātu* 'that' in S.208.

S.239 states that *tūṇi* 'a measure' plus *patakku* 'a measure lesser than *tūṇi*' instead of becoming *tūṇiyê patakku* according to S.164, it follows the ordinary rule of doubling, i.e. *tūṇippatakku*.

S.240 especially refers to *nāḻi* 'a measure' plus *uri* 'a measure lesser than *nāḻi*' becoming *nāṭuri*. This shows the *ḻ* and *r* which are alveolar have some phonetic relationship with *ṭ*. The only difference between them is that the first two are retroflex whilst *ṭ* is not, according to Tolkāppiyar. This sutra speaks of the disappearance of *ḻi* and coming in of *ṭ*. This is rather a curious way of stating the rule. It is really a case of the disappearanee of the final *–i* and then the change of *ḻ* into *ṭ*. This looks like a case of *marūu* which according to Tolkāppiyar cannot be described in sandhi. Therefore, the sutra is rather suspicious.

When there are two words like *puḷiyam* and *puḷim*, a difference in meaning probably came into existence, the first referring to the tree and the second to the sour taste. In the latter case, the nasal is replaced by plosive in appropriate places (S. 225).

There are words denoting the days; but the days then were not named after planets as in modern times but after

the twenty seven stars or constellations. *nāḷ* means a star and therefore means a day named after the star. In Tolkāppiyar's age the names of stars seem to have ended in *–i* (S. 247), *–ai* (S.286) and *–m* (S.331) as in modern times. It is not clear what could have been the full form of the twenty seven names[6]. Iḷampūraṇar gives the examples *paraṇi* (S. 247), *kēṭṭai* (S. 286) and *makam* (S. 331) and Naccinārkkiniyar adds to them the example *cōti* (S. 247) and *ōṇam* (S. 331). But one cannot be very dogmatic about the existence of these very forms in the age of Tolkāppiyar though there is nothing to prevent such an assumption. The augment *āṉ* occurs after these names of days. But *āṉ* seems to be really an old locative form. Naacinārkkiniyar explains this augment as having the force of a locative. The word *āṉ* means also 'that place'.[7] The locative case signs always have the meaning of place. Even in modern colloquial usage, (e. g. *teruvāl pōṉāṉ* 'he went in the street'), *āl*, a variant form of *āṉ* has in rare cases the locative significance well preserved. By the time of Tolkāppiyar this usage of *āṉ* in the locative meaning was slowly disappearing, giving room for the usage of *āṉ* as the sign of third case, though even this had not been so well established as to be given by him as a third case sign.[8]

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6. *ātirai* (paripāṭal 8. 6), *cittirai* (Cilappatikāram. 5. 64) *pūcam* (Ibid. 14.188). Some of them are also referred to in Sangam literature by native words, e. g. *vēḻam* 'elephant' for *paraṇi* (paripāṭal 11.2), *cakaṭu* 'cart' (Cilappatikāram 1–50) for *urōkiṇi* etc.

7. It is also used as locative case suffix. See Kuṟuntokai. 31. 1,83.7 etc.

8. T. P. Meenakshisundaran. 'The so-called inflexional ncrement in Tamil' Indian Linguistcs. Turner Jubilee volume II. P. 129.

The next sutra (S. 248) refers to the names of month ending *–i*. These names also ended in *–ai* (S. 286). Only these two endings are referred to with reference to the names of months[9]. The names of month even to-day end in these two words. Tolkāppiyar mentions *ikku* coming after these words. The *i* in this disappears in accordance with the rule in S. 126 and one gets only *kku* left, which is one of the allomorphs of the fourth case. *ku*, formerly as found in *vaṭakku* 'north', *teṟku* 'south' etc had the significance of direction and therefore it was an ancient locative case sign. Even to-day *ku* appears as such in words denoting time *nāḷaikku* 'to-morrow'. It is because of its new development that it has established itself as the fourth case sign, and therefore Tolkāppiyar has to speak of *ku* as an augment when appearing in the meaning of a locative case sign[10]. This seems to justify Dr. Caldwell's conclusion that the augments were originally case signs[11].

9.8. S.250 deals with exceptions to the rule of doubling of plosive after *–ī* ending. The exceptions referred to are *nī* 'you (sg)', *pī* 'extrement' and *mī* 'place'. But these words will sometime get the following plosive doubled (S. 251). *nī* 'you(sg)' when followed by case suffix change into *niṉ*. Here, Tolkāppiyar points out that this *nī* will have the change in case relationship sandhi also and there will not be doubling of the following plosive as in other instances (S. 253).

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9. The names of month found in Sangam literature are *taii* (Kuṟuntokai–196.4), *māci* (Patiṟṟuppattu–59.2), *paṅkuṉi* (puṟanāṉūṟu–229.5. Cilappatikāram– 14–112), *cittirai* (Cilappatikāram 5.64) and *āṭi* (Ibid. 23.133).

10. T. P. Meenakshisundaran. Op. cit. p. 129.

11. Caldwell. Op. cit. p. 260.

9.9. *u* is said to follow *a* in non-case relationship (S. 254). The demonstrative base behaves like the noun when followed by the plosive and this is stated in a separate sutra (S. 255). When the non-plosives follow the demonstrative base *u*, the rules already stated in S. 205 to 208 is said to apply here (S. 256).

The neuter singular demonstrative nouns ending in *-u* will not undergo any change in sandhi (S. 257). *atu* 'it' in poetry undergoes a special change before aṉṟu. *atu+aṉṟu>* *atāaṉṟu*. Before *ai*, the *u* disappears, i.e., *atu+ai>atai* (S. 258). Venkatarajulu Reddiar suggests that *atu*, *itu* etc were pronounced as ending in *-a* even as it is pronounced to-day in certain dialects in modern Malayalam[12]. He also points out that *u* in these cases is only enunciative, the original proto-Dravidian form ending only in consonant *-t*. The enunciative vowel in Telugu is *i* whereas it is *u* in Tamil and Kannada. If *atu* is *ata* according to him *ata+aṉṟu > atāṉṟu* and *a* of the *aṉṟu* is written as in the middle to form a vowel cluster and thus *atāaṉṟu*. But it was suggested in 2. 7(Page 35) of this treatise that V1+V2>V2V2V2. In such cases the original form can even end in *-u* and yet this change might occur. The writing down of the short *a* is simply to show emphatically the real form of the second word. It is not made clear here what the grammatical category of *aṉṟu* is. The commentators take it as a verb. It is for consideration whether *aṉṟu* can also be taken as verbal participle form which is an alternation of *aṉṟi*. In the Śangam usage it is so[13].

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12. Venkatarajulu Reddiar. Op. cit. p. 143.
13. *aṉṟu*. Puṟanāṉūṟu – 124–1

S. 259 applies the doubling rule to case relationship. S. 260 deals with the coming in of the augment. S. 261 discusses about *-ḻu* ending. S. 262 asserts that *atu, itu* etc in case relationship get augment *aṉ* even as they do when case signs follow them. The second line here that 'the consonant will not double' seems to be unnecessary. But the commentators rely upon the second line for giving out a rule of interpretation. They assume that even where the original rule is made impossible by the subsequent form suggested, the old rule should be specifically negatived.

9.10. Passing on to *-ū* ending the doubling rule is applied when it occurs in non-case relationship (S. 264). Here Naccinārkkiṉiyar adds the example *kaḻūuk kaṭumai* 'stake is strong', but he takes the *aḷapeṭai* as a short vowel ending[14]. If so, it need not be mentioned here where *ū* is dealt with. As Devaneyappavanar states that an example under S. 261 by mistake had come in here[15]. The non-nouns are dealt under S. 265. These are verbal participles and second person verbs, probably imperatives. The sutra states that here the doubling is not objected to. Therefore, the rule seems to be permissive showing that a new usage is creeping into the language. As already stated in S-151, second person verbs follow either the no-change rule or the optional rule. Since specific mention is made for *-ū* ending we have to assume that the doubling is more predominant in these cases than the other. There is no rule stated for any doubling after *āṭūu* 'male person' etc. which Tolkāppiyar himself states. S. 271 states that it will get an augment *iṉ*.

13. *aṉṟu.* Puṟanāṉūṟu - 124-1.
14. Nac. eḻuttu. P. 57 (S. 69).
15. Ibid. P. 163. foot-note (S. 264).

Venkatarajulu Reddiar points out that *āṭūu* etc are looked upon more or less as inferior class nouns, and that is why the augment *in̲* which is not prescribed for superior class nouns can occur with these words without creating any impropriety in S. 271[16]. But the form given in modern edition of Naccin̲ārkkin̲iyar's commentary occurs with a short *u* at its end. If there were the short *u* the sutra must come in the part dealing with -*u*. endings Perhaps the sutra should have followed S. 236. Even as *palā*, *kā* etc get a short *a*, similarly the open long monosyllabic words ending in -*ū* and disyllabic words ending in -*ū* which in a later case must be preceded by a short syllable, get the augment of a short *u* (S. 267). So, S. 271 may be taken to refer to -*ū* ending and the final -*u* only is an augment.

pū follows the rule of getting a nasal after it, sometimes the plosive following it getting doubled (S. 268). Naccin̲ārkkin̲iyar states that this word is a noun as specifically stated and as differentiated from *pū* which may occur as a verb meaning 'to shine' or 'to be beautiful'. It is for consideration whether *pū* might have a nasal ending *(pūm)* originally. *ū* 'flesh' takes the nasal ending *n̲* (S. 269). Naccin̲ārkkin̲iyar states that it must have occurred only in the age of Tolkāppiyar or it must be a dialectal usage.

9.11. Tolkāppiyar couples -*e* ending with -*o* ending because both follow the same rule. They appear only at the end of *aḷapeṭai*. Tolkāppiyar states that no noun ends in -*e* or -*o* (S. 272). This is with reference to the natural form of words and not to the forms which remain after getting an *e* or *o* for emphasis etc. These particles of emphasis are treated

16. Venkatarajulu Reddiar, Op. cit. P. 144.

as separate words and are classified as *iṭaiccol*. Therefore, *e* and *o* occurring only at the end of verbs in the imperative mood are really cases of *aḷapeṭai* of *e* and *o* respectively. S. 273 speaks of these endings occurring after the nouns to which *e* or *o* are added for emphasis and for clear indications. In such cases, there is necessarily a pause and therefore doubling does not apply. In this way, one gets the rule implied in the very usage itself here explained, that is, with reference to both *ē* and *ō*, one finds that their corresponding short vowels occur after them, when these long vowels are either the imperative verb or the particle of emphasis etc.

9.12 Passing on to -*ē* ending, Tolkāppiyar applies the rule of doubling to nouns standing in a non-case relationship (S. 274). *ē* occurring as a particle of interrogation negation or enumeration which naturally has a pause after it forms an exception to the rule of doubling (S. 275). *ē* as a particle of emphasis or of certainty gets a short *e* after it and this natural form itself is taken as a vowel cluster as made clear in S. 277. Therefore, it is not mentioned here. In case relationship, it doubles the following plosive (S. 276). It is also said as it was said with reference to monosyllabic ending in –*ā* and –*ū*, that monosyllabic words ending in –*ē* also get a short –*e* after them (S. 277). *cē* is an exception. It has two meanings. If it refers to the tree, it follows the rule of getting a nasal (S. 278); if it means a bull it gets the augment *i͟n* (S. 279). Nacci͟nārkkiṉiyar refers to an exception to this later rule and quotes the form *cēmaṇi* 'bell of the bull'. This should be taken as occurring because of metrical exigencies or as a post–Tolkāppiyam usage.

9.13. *ō* also more or less follows the rules relating to *ē* ending. S. 289 corresponds to S. 274. S. 290 is a repetition

of S. 275 with slight difference. S. 291 is interpreted by the commentators as referring to *ō* occurring as a particle of *o̱liyīcai* 'suggestion'. There is no mention of *pirinilai* 'exclusion', *terinilai* 'clear indication' ond *ciṟappu* 'superiority' but if S. 291 is interpreted as not referring to *o̱liyicai* alone but to all the occurrances of particles of *ō* other than those mentioned in S. 290, all these varieties of *ō* would be covered. Otherwise one has to explain why Tolkāppiyar omits them here when he mentions them in Collatikāram (S. 741). The singular in S. 291 is used because the form of the particle is the same in all these cases; or they can be taken as homonyms. S. 292 corresponds to S. 276 and 279. But the word *kō* 'king' is an exception when it occurs before the word *il* 'place' and hence it is discussed separately in S. 293. S. 294 refers to words ending in –*ō* behaving as they do before case signs.

9.14. The –*ai* ending is treated in between *ē* and *ō* endings because of the alphabetical order. There also non–case relationship has already been treated in *tokaimarapu*. Taking, therefore, the case relationship alone, he lays down the doubling rule, (S.280) whilst the demonstrative neuter plurals ending in –*ai* are said to behave in the same manner in similar words taking case suffixes (S.281).

The names of trees have already been discussed. But here special mention is made about *paṉai* 'palmyra' in two sutras (S.284 and 285). The sugar candy is something cooked or boiled from the palmyra toddy. Therefore, it is called *aṭṭu* from the root *aṭu* 'cook'. *paṉ*ai + *aṭṭu*> *paṉā ā aṭṭu* (S.284). Tolkāppiyar says the final –*ai* of the preceding word disappears, and there comes a long *ā*, viz. *paṉai*+*aṭṭu*> *paṉā* +*aṭṭu*. It was suggested that in dealing with the names of trees the orginal form was probably with–*m* ending

and that if *m* was lost in *paṉam*, *paṉa* alone would remain. In this case V1 + V2 will give V2V2V2 as already explained. All these rules referring to *paṉai* must have been in usage; but certain new phrases have come to be added during Tolkāppiyar's age and a little before it. These retain the *ai* ending *paṉai+koṭi>paṉaikkoṭi* 'flag having palmyra ensign' (S.275).

In S.288, Tolkāppiyar has said that *vēṭkai* 'desire'+*avā* 'desire'> *vēṭavā* and then becomes *veṇavā* 'ever–increasing desire'. This seems to be a *marūu* form which is inexplicable according to Tolkāppipar. There are a few words occurring in Tolkāppiyam with nasal endings which have in later Tamil the semi vowel endings.

Tolkāppiyar	Later Tamil
iṉ (case suffix) (S.113)	*–il*
āṉ (case suffix) (S.556)	*–āl*
eṇ 'seasame' (S.308)	*–eḷ*

So also the original form might have been *vēṇ* instead of *vēḷ*. which is the form found in modern and medieval times. *Vēṇ* is the form (*vēṇ kōcipaṉ* 'Kosipan of the *Vēṇ* clan) which occurs in the cave inscription of the Pre–Christian era[17]. So *vēṇavā* can be explained as *vēṇ+avā* and not as *vēṭkai+avā*. Therefore the sutra not only looks as a strained explanation but also appears to be against Tolkāppiyar's scheme itself.

9.15. S.295 alone deals with *–au* ending. Only two words are said to end in *–au*, that is *kau* 'seize' and *vau* 'snatch'. In both case relationship and non-case relationship, they get the doubling rule, but Tolkāppiyar states that the great people assert that it will be the proper usage if an augment *u* comes after these endings.

17. T. P. Meenakshisundaran; A history of Tamil language 'P. 50.

Fen. PULLIMAYANKIYAL

10.1. In this discussion of consonantal endings Tolkāppiyar first takes the words standing in case-relationship, probably because the rule of no-change does not apply to them. In the *uyirmayaṅkiyal* the words of non-case relationship have been taken as the basis whilst words standing in case-relationship have been said to follow the rules applicable to such non-case relationship. But, here, in many cases the rule for non-case relationship differs by the no-change rule or by prescribing changes which are other than the doubling of the following plosives. Whatever it may be, the discrepancy in the arrangement of sutras in the two chapters is significant.

10.2. *Puḷḷimayaṅkiyal* takes the consonantal endings in the following order, *ñ*, *n*,*ṇ*, *m*, *ṉ*, *y*, *r*, *l*, *v*, *ḻ* and *ḷ*. This order is somewhat different from the order in which the nasals and semivowels occur in the alphabet, i. e. there is an exception with reference to *n* which instead of following *ṇ* precedes it. This is because *-n* ending follows the rules of *ñ* ending and) also because *n* ending appears in very few (only two words as *ñ* does (one word only).

Naccinārkkiniyar asserts that the sandhi rules of *n* are placed immediately after *ñ* since these two nasals share some sandhi rules in common.

10.3. The *toḻiṟpeyar* 'verbal nouns' which are not different from the root forms take the augment *u* and double the initial plosive of the succeeding word (S. 296). When the succeeding word beginning with nasals and semivowels follow, the augment *u* alone appears (S. 297). For *n*, there is a linkage that *n* is similar, i. e. to *ñ* (S. 298). But with reference to *n*, *m*, *l*, and *ḷ* they are said to follow the same rule when their verbal forms occur as *toḻiṟpeyar*. *toḻiṟpeyar ellām toḻiṟ peyar aṟṟē* 'verbal nouns of any ending behaves like verbal nouns (ending in *n*)' is repeated with reference to each ending (S.306, 327, 376 and 401). In the same way, if the forms other than *toḻiṟpeyar* behave like verbal nouns, the phrase *toḻiṟ peyar iyaṟṟē* 'similar to the verbal nouns 'is repeated (S. 309, 345, 373, 382 and 463).

10.4. In case relationship the *–n* ending looses its *u* and gets an *a* (S. 299). But the *n* in *verin* 'back' becomes a homorganic nasal corresponding to the plosive following it (S. 300). Of course, the sutra explains this in a different way; it speaks of the loss of the final *–n* and coming in of the homorganic nasal. This way of stating helps Tolkāppiyar to speak easily of the plosive itself coming in instead of the nasal in S. 301.

10.5. The rules for non–case relationship sandhi involving *n* has already been discussed in S. 147. In case relationship, *ṇ* becomes *ṭ* (S. 302). But the words *āṇ* 'male' and *peṇ* 'female' are said to behave like *a ∴ ṟiṇaippeyar* (S. 303). The commentators take it as *a ∴ ṟiṇai viravup peyar* and explain that

they undergo no–sandhi according to S. 147. Venkatarajulu Reddiar points out that *āṇ* and *peṇ*, if separately used without addition, denote *uyartiṇai* because atleast *peṇ* is specifically referred to as belonging to *uyartiṇai* in S. 1561[1].

Tolkāppiyar, whenever there are homonyms, takes care to specify the meaning of the word to which the particular rule he lays down, applies. The word *viṇ* gets the augment *attu* when it denotes 'sky' (S. 305). There are certain names which denoted (social) class of people (*kiḷaip peyar*) such as *umaṇ* 'the salt merchants'. The *-ṇ* here undergoes no change (S.307). This applies to *–ṉ* ending *kiḷaippeyar* also (S. 338).

The word *eṇ* denoting 'seasame seeds' undergoes change even when occurring in non–case relationship (S. 308.) *muraṇ* 'opposition' is a *toḻiṟpeyar*. But it follows the no-change rule in non–case relationsbip sandhi according to S. 148 and *-ṇ* > *ṭ* in case relationship sandhi as in S. 302[2].

10.6. *–m* ending in case relationship disappears completely and the following plosive doubles (S. 310). The loss of final *-m* makes that word appear as ending in a vowel. If it is followed by a word beginning with *a–* or *ā–*, the final *-a* of the preceding word is lengthened into *ā* (S.311).
mara + aṭi > maraaaṭi

kuḷam + āmpal should thus become **kuḷāāmpal* 'water lily of the tank' whereas it is given as *kuḷāampal* by the commentators. No rule is provided however to shorten the initial long vowel of the succeeding word into a short vowel. So

1. Venkatarajulu Reddiar. Op. cit. P. 150.
2. *muraṇ citaitta* (Patiṟṟuppattu. 64.14) and *muraṇ kaṭanta* (Puṟanāṉūṟu. 135.21)

they read a rule of implication to have the form as *kuḷāampal.* Venkataraju Reddiar generalised this by saying that when the initials of some words are long, it is not written as long[3]. It is a problem as to how far this rule of implication can be made valid.

The rule of the coming in of the plosive after the loss of *m* is not followed in some cases which have the option of bringing in a plosive or a nasal (S. 312). These cases wherein the nasal and plosive freely vary, are not specified in the grammar and it is left to the readers to find out where they occur in usage.

The words standing in non-case relationship when followed by a plosive get their final *–m* changed into a homorgenic nasal (S. 314). *akam + kai > aṅkai* 'palm' (S.315). Iḷampūraṉar rightly takes it as *marūu. ilam + paṭu > ilampaṭu* 'to become poor' (S. 316). It is stated that this is a poetical usage (Malaipaṭukaṭām 576).

The number 'thousand' is then taken up for discussion. *āyiram* gets an agument *attu* if it is followed by a lesser number (S. 317) and this happens even when it occurs with an attribute (S. 318). When *āyiram* is followed by words of weights and measurements it behaves like a word in case relationship (S. 319). Nacciṉārkkiṉiyar points out that *āyiram* here is not in case relationship because of the statement "like a word in case relationship".

The third person pronoun *ellārum*, 'they-all' second person pronoun *ellīrum* 'you-all', and the words *yām* 'we' and *nām* 'we' (which are expected to shorten their vowels before case

3. Venkatarajulu Reddiar, Op. cit. P. 151.

suffixes) are all said to follow the rule which have assigned to them when they are followed by their case signs (S. 320). The last line in this sutra states that instead of the plosive of the succeeding word which is expected to appear, the homorganic nasal will come in. In non-case relationship there is no augment (S. 321). *ellām* 'all' loses its final *-m* in non-case relationship and gets the augment *va<u>rr</u>u* in addition in case relationship. Both the commentators mention that *ellām* is a *viravuppeyar* here. *ellām* instead of getting a plosive can also get the homorganic nasal (S-323). In *uyartiṇai* nouns it gets the augment *nam* (S. 324).

Tolkāppiyar begins to discuss the form *num* 'your' followed by a word in case relationship (S. 325). This too gets a nasal instead of getting a plosive after the loss of the final *-m* as contemplated in S. 310. It is not, therefore, necessary to explain the loss of the final-*m* by reading an implied rule, in any sutra. The next sutra (S. 326) takes *num* as the basic form and explains *nīyir* as its alternant. The sutra explains the process thus: *num > nīim > nīi > niir > nīyir*. This is something more than simply saying that *nīyir* and *num* are alternants. In Collatikāram also *nīyir* is referred to as the alternant form of *num* (S. 628). Cēṉāvaraiyar explains that Tolkāppiyar has taken *num* as the basic form because there is nothing wrong in taking any one of these as the basic form[4]. *īm* 'burial ground', *kam* 'profession' and *urum* 'thunder' behave like verbal nouns getting an augment *u* (S. 328), though *īm* and *kam* may get an augment *akku* in case relationship (S. 329).

S. 330 states that *m* is shortened when followed by *v*. It is not clear why this sutra should come in here. In *moḻimarapu*

4. Cēṉāvaraiyar. Tolkāppiyam–collatikāra urai–S.143.

one has been told of the shortening of the *m*. Therefore, a cloud of doubt casts its shadow on this sutra.

10.7. The final -*ṉ* in words of case relationship becomes the alveolar plosive (S. 332). This is a case of regressive assimilation. *maṉ*, *ciṉ*, *āṉ*, *īn*, *piṉ*, *muṉ* and verbal participles ending in -*ṉ* also behave in the same way. The verbal participle referred to here is conditional verbal participle of *ceyiṉ* pattern. The word *vayiṉ* 'place' which is preceded by the demonstrative and interrogative bases also follows the above rule (S. 334). The word *kuyiṉ* follows the rule of no-change (S. 335). Naccinārkkiṉiyar states that *kuyiṉ* follows this rule only when it is a noun meaning 'cloud'. It can also be a verb.

ekiṉ may mean either the tamarind tree or the bird swan. The word with the gloss 'swan' gets an augment *a* and the natural doubling of the following plosive thereafter.

The word *mīṉ* 'fish' optionally changes its -*ṉ* into the alvolar plosive (S. 339).*tēṉ* 'honey' +*kuṭam* 'pot'>*tēṅkuṭam*, and *tēṟkuṭam* according to the above rules or become *tēkku-ṭam* (S. 340), where its original nasal is lost. It will be noticed that *ṉ* and *m* endings behave in a similar way in many cases. But in the time of Tolkāppiyar, a new usage has gained currency and he says that it is not a mistake to say that *tēṉ*+*kuṭam*>*teṅkuṭam* where alveolar nasal when followed by a plosive becomes homorganic nasal (S. 341). When *tēṉ* is followed by a nasal, -*ṉ* may optionally disappear (S.342). *tēṉ*+*ñeri*>'broken piece' may become either *tēññeri* or *tēñeri*. If the word *tēṉ* is followed by *iṟāal*' honey-coumb' one gets the form without any change as *tēṉiṟāal* (S. 343). The other form is *tēttiṟāal* (S. 344). Perhaps this is a case

of an augment *attu* coming in or was then an alternant form with the formative *tu* as *tēttu*. This sutra also does not follow the ordinary way in which Tolkāppiyar explains the sandhi rule. The various forms represent the various stages of assimilation or various dialectal forms which have entered into the literary usage. Though *mi<u>n</u>* 'thunder', *pi<u>n</u>* 'after 'and *ka<u>n</u>*, copper work, are not *to<u>l</u>i<u>r</u>peyar*, they follow the rule of taking the augment *ū* (S. 345). *ka<u>n</u>* in combination of case relationship gets an augment *ā* (S. 346).

Here follows five sutras (S. 347 to S. 351) which relate to proper names. Masculine proper names ending in -*<u>n</u>* when followed by the relationship term *tantai* 'father' there are some sandhi changes. The final -*a<u>n</u>* of the preceding word and the initial consonant in the succeeding word are lost, e. g. *cātta<u>n</u>* becomes *cāttu* and *tantai* becomes *antai* and one gets therefore the form *cāttantai* (S. 347). If the preceding word is *āta<u>n</u>* or *pūta<u>n</u>*, the consonant there, namely *t*, *is* lost; so also in the succeeding word not only *t* but also the vowel *a* is lost. These give the resulting form *āntai* and *pūntai* (S. 348). These should also be *marūu* forms. The next sutra (S. 349) states that if the proper name is preceded by an attribute, then none of the changes takes place. If the person denoted by the succeeding word is the son of the person denoted by the preceding word there is a difference in sandhi, i. e. the final - *<u>n</u>* of the preceding word is lost and an augment *m* comes in.e.g. *ko<u>r</u><u>r</u>a<u>n</u>* + *cātta<u>n</u>* > *ko<u>r</u><u>r</u>añcā<u>t</u>ta<u>n</u>* '*cātta<u>n</u>* son of *ko<u>r</u><u>r</u>a<u>n</u>*' (S.350). There are three words which are exceptions to S.347, 348 and 350. They also follow the rule of no-change. These proper names are *tā<u>n</u>*, *pē<u>n</u>* and *kō<u>n</u>* (S.351).

The pronoun *tān* 'he, she or it' and *yān* 'I' are taken up next for consideration (S.352). Their first syllable is shortened in words of case relationship as they do when they take case signs. In non-case relationship, both the length of the vowel and the final *-n* are retained (S.353).

The word *aḻan* 'corpse' loses its final nasal and the plosive following it gets doubled (S.354).

mun+il gets an alveolar plosive in the middle, giving the form *munṟil* 'courtyard'. The sutra specifically states that it is a *marūu* form and therefore is against Tolkāppiyar's scheme contemplated in S.482. *pon* 'gold' has the alternant form *polam* in poetry (S.356).

10.8. Of the six semi vowels, *y*, *r*, and *ḻ* follow more or less the same rules prescribed for the vowel endings. The rule for *y* is stated first, and *r* and *ḻ* are said to behave in the same way as *y* and *r* respectively. The laterals, *l* and *ḷ*, become either *āytam* or the corresponding stops before plosives and the corresponding nasals before nasal.

10.9. *av* 'they', *iv* 'these' and *uv* 'they', 'those things, near you' get the augment *vaṟṟu* in case relationship (S.378). As already stated, in non-case relationship, the *v* becomes *āytam* (S.379). Naccinārkkiniyar states that this change is rare at his time. The above two rules involving *v* (S.378 and 379) refer to instances where the succeeding word begins with a plosive, as is inferred from the subsequent sutras. S.380 refers to instances where the succeeding word begins in a nasal and the *v* becomes the corresponding nasal, an instance of regressive assimilation S.381 refers to instances where

the succeeding word begins in vowels or semi vowels and *v* follows the rule of no-change.

It is surprising that in many cases Tolkāppiyar does not refer to the interrogative *e*-, though it occurs in Tolkāppiyam[5]. Venkatarajulu Reddiar points out the view of Aracaṉ Caṇmukaṉār that *e* is only the shortened form of *yā* as *eṉ* is the shortened form of *yāṉ* 'I'[6]. But this shortening is nowhere mentioned in Tolkāppiyam with reference to the interrogative *e*. Venkatarajulu Reddiar suggests that *e* is not mentioned because it occurs as a relative particle in *epporuḷ .... apporuḷ*[7], *ennilam .... annilam*[8] etc but it is difficult to prove that *e* was a relative particle wherever it occurs. In these two sutras, it is sheer accident that *e* is interpreted as a relative particle.

The *v* occurring in *tev* 'enmity' which is the only other word ending in -*v* (apart from *av*, *iv* and *uv*) gets the augment *u* like *toḻiṟpeyar*.

10.10 Passing on to the laterals, *l* is said to behave like the alveolar nasal *ṉ* (S. 366) and *ḷ* like retroflex *ṇ* (S. 396) in case relationship, i.e. they change into alveolar plosive and the retroflex plosive respectively. This happens when the succeeding word begins in a plosive. If however, the succeeding word begins in a nasal, they become alveolar (S. 367) and retroflex nasals (S. 397) respectively. The commentators take the sutras (367 and 397) as applicable to non-case relationship also. All the changes here mentioned are types of

5. Tolkāppiyam. S. 159, 334 etc.
6. Venkatarajulu Reddiar. Op. cit. P. 32.
7. Tolkāppiyam. S. 518.
8. Ibid. S. 965.

regressive assimilation. In non-case relationship, the change of the laterals into plosives is optional (S. 368 and 398). When these laterals are followed by the dental plosive, they become *āytam* (S. 369 and 399). As *āytam* occurs only after the initial short syllable, it must be taken that these rules apply only to such an environment. This is made clear by the next sutra also. If the laterals occur after an initial long syllable, the rule of no-change applies (S. 370 and 400).

It is to be noted that the pattern of arranging the rules of *ḷ* on the basis of the rule of *ḻ* is a little disturbed in S. 400 which though on a par with S. 370 has two more lines in addition.

There are five sutras however under *l* discussing the exception to the general rule. *nel* 'paddy', *cel* 'white ant' *kol* 'killing' *col* 'word' are pointed out as following the rule applicable to the case relationship even when they stand in non-case relationship (S. 371). The word *il* 'not' takes the forms *illai*, *il* and *illā*. The vowel endings here get the plosive doubled (S. 372). S. 373 describes the rule for *val* 'dice', that is, it behaves like *toḻirpeyar*. This sutra is in all force with S. 403 in which case S. 373 and S. 374 should come after S. 377 if the general pattern is to be followed. S. 374 is an exception to the above rule where *a* comes instead of *u* in the two phrases *valla nāy* 'a piece in gambling' and *vallap palakai* 'Gambling board'. This is only a permissive rule not completely ousting the operation of S. 373.

There are two sutras for *-ḷ* ending: *puḷ* 'bird' and *vaḷ* 'bridle' which though not *toḻirpeyar*, get the augment *u* (S.403).

makkaḷ 'people' has its final lateral changed into the corresponding plosive in some cases (S. 404). The commentators point out that the change occur when the term refers to the corpse instead of human beings. The sutra is not specific about such definite usages. But the phrase *makkaṭcuṭṭu* (S. 484). occurs in the first sutra in *Collatikāram* where this restriction laid down by the commentators does not work. Therefore, Naccināṛkkiṉiyar adds that the restriction is not followed in a few cases. On the other hand, Tolkāppiyar's usage should guide as a general usage rather than as an exception to the rule framed by the commentators. Then the rule can therefore apply only to post–Tolkāppiyam usage. The sutra probably refers to a dialectal variation of the ordinary rule which has become well estsablished in the standard literary language. If one is to keep the pattern of *l* rules, the sutra also must precede S. 401.

10.11. Passing on to the semivowels *y*, *r*, and *ḻ* the general rule of doubling has already been pointed out. There is some doubt about the scope of the *māṭṭēṟu* 'linkage'. Does it apply only to case relationship as is made clear by the *maṭṭēṟu* in *uyirmayaṅkiyal*? Naccināṛkkiṉiyar is of the opinion that it does not apply here and so he says that the examples of non–case relationship for *r* and *ḻ* will be shown under general exceptions. The interpretation of Iḷampūraṇar shows that he is also of the same opinion. But, Naccināṛkkiṉiyar refers to certain commentators who take these *māṭṭēṟū* as applying to both case-and non-relationships. The statement "*alvaḻi–y–ellam iyalp–eṉa moḻipa*" which is applicable to *–y* ending (S. 361), was perhaps repeated for *–r* and *–ḻ* ending words also. These statements should be found after S. 365 and S. 395 respectively. But they are

missing now. It is impossible to think of Tolkāppiyar failing to mention these sutras under *-r* and *-ḻ* endings.

Some specific words are taken up by Tolkāppiyar which happen to be exceptions to the general rule. *tāy* 'mother' is also an exception (S. 358); but when it occurs preceded by *makaṉ* 'son' the ordinary rule of doubling occurs (S. 359). There are other words which optionally get a plosive or nasal (S.360).

Under-*r* also, we get certain exceptions to the rule. S. 363 refers to the names of trees ending in *-r*. Of these some follow a different rule. *cār* 'a tree' when followed by *kāḻ* 'seed' gets plosive doubled (S. 364). Such minute definitions of environment show the careful analysis which Tolkāppiyar has made and it is therefore not proper to read any implication or exception into his sutras. *pīr*'a plant' has the option of following the general rule of getting the nasal in between the words (S. 387).

The numeral *ēḻ* 'seven' is then discussed (S. 388 to S.394) and finally the word *kīḻ* 'below' has the option of following either the general rule or the rule of no-change (S. 395).

ēḻ 'seven' is said to follow the rule of the augment laid down for this word when it takes the case signs (S. 388). i.e. it will take the augment *aṉ*. When this numeral is followed by other numerals, or words of weights and measurements, the shortening of the initial syllable and the addition of *u* at the end are not prohibited (S. 389). This is not phonologically conditioned but it may be taken generally as referring to instances where the succeeding word begins with a consonant. S. 391 and 392 seem to suggest this. When *eḻu* is followed by *āyiram* 'thousand' the *u* is lost (S. 391). It is not a case of

no-change because the initial syllable remains shortened. *ēḻnūṟāyiram* 'seven hundred thousand' is another exception to the general rule of restriction (S. 392), because before the consonant *n*, the original form undergoes no-change. *ēḻ* retains its original form before the three high numbers *tāmarai*, *veḷḷam* and *āmpal* (S. 393). If the words beginning with a vowel occur as a succeeding word, *ēḻ* remains as it is without suffering any change (S. 394). This sutra makes it clear that the environment above differentiated by us is justified and the various sutras like S. 391, 392 393 are only exceptions[9]. In *ēḻ* plus *pattu* 'ten', *ēḻ* becomes *eḻu* and the first *t* in the succeeding word becomes *āytam* and so the resultant form is *eḻupaḵtu* 'seventy' (S. 390).

10.12. There is a general exception found at the end of this chapter and the commentators restrict the exception to words ending in consonants only. But since there is no such rule of applying at the end of *uyirmayaṅkiyal*, this general exception may be taken as applicable to both the chapters.

It is said in S. 405 that in the chapter on sandhi which has been explained clearly, one must note clearly instances of rules which are to be operated properly. This means that there may be exceptions to the rules formulated already.

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9. There are some instances in Tolkāppiyam text, where *ēḻ* occurs before consonant. e.g. *ēḻcol* 'seven words' (S. 764), (*ir*) *ēḻtuṟai* 'seven tuṟai (S. 1002) etc. Seethabai 'A Study of index verborum of Tolkāppiyam – An unpublished thesis. The study of numerals in Old Tamil reveals the following fact. All instances of *eḻu* occur before consonants only but *ēḻ* occurs before vowels in thirteen instances and in ten instances before consonants (S. V. Shanmugam. 'Tamil Numerals').

Eleven.

KURRIYALUKARAPPUNARIYAL

11.1. The shorter *u* ending words are separately dealt with probably because they could not be included under vowels or consonants as shorter *u* is classified as one of the dependent sounds. Although it is a vowel, it behaves in sandhi in a way different from other vowels.

11.2. S. 406 to S. 410 are already discussed under *Cārpu eḻuttu*, the fourth chapter of this work (vide PP 50–55).

neṭil toṭar and *uyirt toṭar* shorter *u* when succeeded by words beginning with the plosives get doubling of the plosives and follow the same rule of case relationship sandhi (S. 411). The next sutra states that there are certain words where the above rules do not operate. It can be generalised from the examples given by the commentators that the sandhi rule given in S.411 operates only when the consonant is either *ṭ* or *ṟ*, and Pavaṇanti has specifically stated thus in his grammar[1].

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1. Naṉṉūl. S.183.

iṭaiyoṟṟut toṭar and *āytat toṭar* shorter *u* according to the scholars follow the rule of no-change (S 413). *vaṉṟoṭar* and *meṉṟoṭar* shorter *u* get the following plosive doubled. In *meṉṟoṭar*, the nasal becomes the corresponding plosive according to both the commentators. The last line in S.414 runs thus: *valloṟṟu iṟuti kiḷaiyoṟṟu ākum*. This is taken as conjunctive compound by both the commentators, i.e. *iṟuti valloṟṟu* and *kiḷaiyoṟṟu*. The first is taken to refer to words where the nasal is a homorganic nasal of the following plosive and the second to non-homorganic nasal changing into their corresponding plosives. The example for the former category is *kuraṅku* 'monkey' + *kāl* 'leg' > *kurakku-k-kāl* and for the latter is *aṉpu* 'love' + *taḷai* 'bond' > *aṟputtaḷai*. Venkatarajulu Reddiar points out that the whole phrase refers to only the homorganic nasal and the change of non-homorganic nasal is a later day usage[2].

S.415 states that the names of trees get the augment *am* and the next sutra says that in certain words denoting trees, the homorganic nasals do not get converted into their respective plosives. The question is raised by Nacciṉārk-kiṉiyar whether *maram* 'tree' includes the *pul* variety[3]. The term *maram* is said to refer to that species of plants whose inner portion is hard, and *pul* to that whose outer portion is hard[4]. He points out that though *maram* is distinguished from *pul* in *marapiyal*, here it includes *pul* also.

The coming in of the augment *am* occurs with reference to *neṭil toṭar* and *valloṟṟut toṭar* shorter *u* and these cases

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2. Venkatarajulu Reddiar, Op. cit. P.168.
3. Nac. eḻuttu. P. 233 (S. 415).
4. Tolkāppiyam. S. 1585.

have to be learnt by a study of traditional usage (S. 416). These refer naturally to non-tree words.

There are also other words which get the augment *akku* and where the homorganic nasal does not undergo any change (S. 418): *kuṉṟakkūkai* 'owl of the mountain' *maṉṟappeṇṇai* 'Palmyra in the common place'; but *kuṉṟam*[5] and *maṉṟam*[6] are also found to occur and so they can be taken *kuṉṟam+kūkai* instead of *kuṉṟu+akku+kūkai* etc. Venkatarajulu Reddiar feels that this sutra, by mentioning specifically *kiḷaimoḻi*, refers to words denoting a community. *kiḷaimoḻi* is *kiḷaippeyar* to him. He states that there is no example available[7].

The numerals get the augment *aṉ* in the same way as they take case signs (S. 419).

11.3. As usual specific words are then taken up for discussion at the end of this section on case relationship sandhi. *vaṇṭu* 'bee' and *peṇṭu* 'girl' get the augment *iṉ* (S. 420) and of these *peṇṭu* is not objected to even if it gets *aṉ* (S. 421). *yātu* 'which' and *aºₒtu* 'it' get *aṉ* as they do when they are followed by case signs (S. 422).

11.4. The non-case relationship is taken up and for the sake of continuity forms like *aºₒtu*, *iºₒtu* 'it' and *uºₒtu* are then taken up. When these are followed by vowels, the *āytam*

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5. *kuṉṟam* is found in Puṟanāṉūṟu 109.8, 156.1; Kuṟuntokai 1.3, 23.5 etc.
6. *maṉṟam* is found in Puṟanāṉūṟu 76.4, 371.1; Kuṟuntokai 33.2, 46.2 etc.
7. Venkatarajulu Reddiar. Op. cit. P. 170.

remains (S. 423); when non-vowels follow, the *āytam* disappears (S.424). The reason for these changes is not clear[8].

The next sutra refers generally to all combinations of non-case relationship, which as usual follow the rule of no-change (S. 425). The exception is when the preceding word is *vallor̲r̲ut toṭar* (S. 426).

The next sutra (S. 427) is something akin to S. 159 which deals with words beginning with demonstrative and interrogative bases; but here the ending is the shorter *u* of *mellor̲r̲ut toṭar* variety. These get the doubling of the plosive of the succeeding word. Of these, *yāṅku* 'where' may optionally follow the no-change rule (S. 428). But, all these four words do not themselves undergo any other change (S. 429).

There is a sutra according to which *uṇṭu* 'exist' when followed by words beginning with a plosive becomes *uḷ* (S. 430). This seems to be like S.372. As Venkatarajulu Reddiar points out that it is *uḷ* which has become *uṇṭu* with the formative suffix *tu* which in later times has come to signify neuter singular suffix[9].

11.5. The words of direction end in shorter *u* and these are next taken up for consideration[10]. When two words of

8. Since this contradicts the statement in S. 40, T. P. Meenakshisundaram thinks that these two sutras (423 and 424) may be interpolations. A History of Tamil Language, P. 137.
9. Venkatarajulu Reddiar. Op. cit. P. 170.
10. Both the commentators give *kiḻakku* and *mēr̲ku* for the east and the west respectively. *kiḻakku* occurs, in the sense of 'pit' in Patir̲r̲up pattu (36.10), and in the sense of 'below' in Kur̲untokai (337.2), Nar̲r̲iṇai (297.1) and Tirukkur̲aḷ (488). The form *mēr̲ku* is

direction combine there is augment *ē* coming in between them (S. 431). The next sutra speaks of other changes occurring when *tiripu* is referred to. Both the commentators and the later authors[11] take this as referring to angular directions like southwest, northeast etc. In all such cases, the preceding word will be either *teṟku* 'south' or *vaṭakku* 'north'. The sutra says that the *u* with its plosive preceding it will disappear and if the preceding word is *teṟku*, the alveolar plosive *ṟ* in the middle will change into an alveolar nasal *ṉ* (S. 432). But in *vaṭakku*, the disappearance of the velar plosive in the middle of the word is not specifically stated. The commentators therefore read an implied rule for such disappearance. Venkatarajulu Reddiar however explains that when 'the law of convertability of surds into sonants' did not apply, *vaṭakku* must have been written as only *vaṭaku* and that when the pronunciation of the intervocal plosive changed into one of voiced plosive, the additional *k* was introduced in writing to retain the old pronunciation of unvoiced plosive. He gives

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not in Sangam literature but it is found as *mēkku* in the sense of 'height' in Naṟṟiṇai (91.6), in the sense of 'up' in Kuṟuntokai(26.2) and in the sense of 'over' in Puṟanāṉūṟu (143.2). *mēṟku* occurs in Maṇimēkalai in the angular direction, i.e. *teṉmēṟku* 'south west' (25.155). In Cilappatikāram only, *kīḻ* and *mēl* denote 'east' and 'west' respectively. *kīḻticai* 'eastern direction' (23.183) and *mēṟṟicai* 'western direction' (23.184). The common word for these two directions in Old Tamil are *kuṇakku* 'east' (Patiṟṟuppattu. 50.5; Naṟṟiṇai 187. 1, 230. 4; Puṟanāṉāṟu. 6. 3. etc.) and *kuṭakku* 'west' (Puṟanāṉūṟu. 6.4; Naṟṟiṇai. 153.1, 346.2; Kuṟuntokai. 89.5.; Patiṟṟuppattu 51.3 etc).

11. K. Vellaivaranar, Op. cit, 297 and P. S. Subramanya Sastri, Op. cit, 337 but as noted above, it occurs only once in Maṇimēkalai.

other examples which behave like: *pāku* ~ *pākku* 'arecanut, etc., and concludes that the commentators have to read a rule of implication because of the later day convention[12].

11.6. The last subject to be dealt with under this chapter is the combination of numerals and other words. In this discussion, the methodology differs violently from that followed for the discription of the sandhi rules given till now. When the two words combine together, the changes have all been given in one sutra. But when coming to the numerals the changes in relation to one sandhi have to be described in a number of sutras. This reminds one of *tokaimarapu* but even there the changes are not discussed piecemeal as here.

First, the numerals, one to eight are taken up for explaining their changes when they are preceded by *pattu* 'ten' (S 433). The final syllable of the word *pattu* consisting of a consonant and a shorter *u* disappears and the augment *iṉ* comes in all cases except in the case of *iraṇṭu* 'two'. *pattu* (standing as *pat*) becomes *paṉṉ* by replacing *t* by *ṉṉ* before *iraṇṭu* (S. 434). When *pattu* is followed by *āyiram* 'thousand', it undergoes the same sandhi as given in S. 435. When *pattu* is followed by words referring to measurements and weights the augment *iṉ* comes in (S. 436).

S. 437 states the sandhi rules when the preceding word is any of the numerals from one to nine and the succeeding word is *pattu*. Here *pattu* becomes *pa°°°tu* by replacing *t* with

12. Venkatarajulu Reddiar. Op. cit. P. 170. It is a problem as to when the law of the convertability begins to operate and this is answered differently from different points of view. See Bh. Krishnamoorthy 'Telugu verbal bases.' pp. 29-31 and T. P. Meenakshisundaran 'A History of Tamil language' pp. 129-132.

āytam and in all the cases of the preceding words except *āṟu* 'six', the final shorter *u* and the preceding plosive disappear. . 438 to 444 explain the further changes that occur in the preceding words as follows :

oṉṟu 'one' and *iraṇṭu* 'two' – The change of final consonant into *ṟ* and the addition of *u* (S. 438) and the disappearence of medial *ra* of *iraṇṭu* (S. 439).

mūṉṟu 'three' and *āṟu* 'six' – The initial long vowel shortens (S. 440) and the final consonant of *mūṉṟu* becomes *p* (S. 441)

nāṉku 'four' – The change of final consonant into *ṟ* (S. 442)

aintu 'five' – The change of the final consonant into *m* (S. 443)

eṭṭu 'eight' – The change of the final consonant into *ṇ* (S. 444)

S. 445 explains the sandhi of *oṉpatu* 'nine' with *pattu* 'ten' to become *toṇṇūṟu* 'ninety' by the following process :

oṉpatu+*pattu* > *oṉpapa°°tu* (according to S. 437) > *toṉpatupa°°tu* > *toṇṇapapa°°tu* > *toṇṇutu* > *toṇṇūṟu.*

The loss of *pa* of the preceding word is not mentioned and so the commentators point out that it should also be added to arrive at the final form.

The same scheme is followed when numerals are followed by words denoting measurements and weights. These words are said to follow the rules already laid down (S. 446), and the subsequent sutras (447 to 459) deal with the changes in the numerals wherever such changes differ from what has already been stated. These are treated separately according to the initials of the succeeding word.

mūṉṟu 'three' - The change of final nasal into the corresponding plosive following (S. 447).

aintu 'five' – The change of the final nasal into homorganic nasal with the following plosive (S. 448).

The above two rules apply when the succeeding word begins with *k*, *c*, *t* or *p* (S. 449).

eṭṭu 'eight' – it undergoes no-change when succeeded by *n*, *m*, *v* or *a* (S. 450).

aintu 'five' and *mūṉṟu* 'three' – the final nasals become the same as that of the following sounds when they are followed by nasal or semivowel (S. 451) and the final nasal of *mūṉṟu* becomes *v* before *v* (S. 452). and the final nasal of *aintu* disappears (before *v*) (S.454).

nāṉku 'four' – the final nasal becomes *l* (before *v*) (S.453).

oṉṟu 'one' and *iraṇṭu* 'two' – (standing as *oru* and *iru* respectively) the loss of final *u* and the lengthening of initial vowel when they are followed by vowel (S.455).

mūṉṟu, *nāṉku* and *aintu* – behave in the same way (when followed by vowel) as they do when they are followed by *v* (S. 456). The initial vowel of *mūṉṟu* is lengthened before *uḷakku* (S. 457)

āṟu 'six' – standing as *aṟu*, aceording to S. 440 and then lengthening of the initial vowel (before vowels) (S. 458).

oṉpatu 'nine' - without undergoing the above change takes the augment *iṉ* before all the cases of names of weights and measurements (S. 459).

S. 460 describes the behaviour of the numerals when followed by *nūṟu* 'hundred', these again are said to follow the general rule mentioned above. The subsequent sutras give exceptions to this general rule.

mūṉṟu 'three' – the change of final nasal into *n* (S. 461).

nāṉku 'four' and *aintu* 'five' – no change in the final vowel (S. 463).[13]

oṉpatu 'nine' – + *nūṟu*> *toṉ* (*patu*) + *nūṟu*>*toḷḷ* *ṉūṟu*> *toḷḷ* *āṟu*>*toḷḷ* *āiram*>*toḷḷ* *āyiram*>*toḷḷāyiram.*

Here, there is no rule for the loss of *patu* unless we interpret that the preceding word behaves as in *toṇṇūṟu* 'ninety' except for the change *ṇṇ* becoming *ḷḷ*.

S. 464 and the following sutras (465 to 470) give the behaviour of the numerals when followed by *āyiram* 'thousand'. It is curious that there is no general rule as in the case of *nūṟu* 'hundred' and words denoting weights etc. Perhaps, there was an additional line after the first line of this sutra prescribing the linkage like the second line of S. 446, *kiḷanta iyala tōṉṟuṅkālai.* In that case, the present second line in S. 464 should be a separate sutra which begins to explain the exceptions.

oṉṟu 'one' and *iraṇṭu* 'two' – The lengthening of the first vowel (S. 465).

mūṉṟu 'three' – The change of final nasal into *v* (S.466)[14]

nāṉku 'four' – The change of *n* into *l* (S. 467).

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13. The commentators have not given the form for five hundred. According to this sutra, the form should be *ainnūṟu.* But *aiññūṟu* is found once in Tolkāppiyam text. S. 1358. 2.

14. The resultant for three thousand is *muvāyiram.* The commentators give the form *mūvāyiram* also. It is to be noted that the all instances in Tolkāppiyam text and in Sangam literature *mū* occurs before semivowels and vowels (S. V. Shanmugam, 'Tamil numerals')

aintu 'five' – The change of *n* into *y* (S.468).

ār̲u 'six' – (standing as *ar̲u*) the loss of final vowel and the preceding consonant (S. 469).

on̲patu 'nine' – The addition of *in̲* without any change (S. 470).

When *nūr̲āyiram* 'hundred thousand' follows the numerals, it behaves like *nūr̲u* 'hundred' (S. 471). If *nūr̲u* is followed by the numerals one to nine, the alveolar plosive of the word *nūr̲u* doubles (S. 472). The same thing happens when *nūr̲u* is followed by numerals denoting further denominations of the ten like *irupaஃtu* 'twenty' etc. (S. 473). When *nūr̲u* is followed by words of measures and weights, the same rule is followed (S. 474).

Numerals denoting denomination of tens such as *orupaஃtu* 'ten', *irupaஃtu* 'twenty' etc are next taken up for discussion, when followed by numerals one to nine (S. 475). Here the *āytam* disappears and a plosive *t* comes in. If after these terms, *āyiram* occurs, the augment *in̲* comes in after the disappearance of the *āytam* but without the coming in of a plosive (S. 476). The same rule applies when these terms are followed by words of measures and weights (S. 477).

This discussion closes with three sutras. The first (S. 478) deals with numerals when followed by other words beginning with plosive, semivowel or nasal, and states that these will follow the same rule explained already. The commentators point out the necessary rules applicable here. The second sutra (S.479) deals with cases where the following word begins with a vowel. Here *or̲u* becomes *ōr*, i.e. the initial vowel is lengthened and the final *-u* is lost. This is traditionally

taken as a general rule that a closed long syllabic form occurs before a word beginning with a vowel and that an open short disyllabic form occurs before a word beginning with a consonant.[15] The numerals two to nine preceding the word *mā* 'a measure' follow the rule stated in S. 466 when *m* is the succeeding consonant (S. 480).

11.7. The next sutra (S. 481) has nothing to do with shorter *u*; really it must have come in *puḷḷimayaṅkiyal* where the *-l* ending and the *-ṉ* ending are dealt with. This sutra states that in combination of two words implying case relationship, when the preceding word end in *-l* or *-ṉ*, the augments *um*, *keḻu* etc come in verse. This sutra is evidently misplaced in this chapter. Since it deals with augments not listed by Tolkāppiyar, it can be argued that it is a later addition.

11.8. S. 482 is very important as explaining the commingling of words which cannot be explained either in terms of preceding word or succeeding word because of the difficulty of recognising two distinct words therein.[16] These words are the four categories of words mentioned in this sutra: (1) *kuṟaiccol*: This is interpreted by Iḷampūraṇar and Naccinārkkiniyar as *uriccol*. It is said that these words cannot be isolated and discussed as separate units; these occur as

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15. This is not found true in Tolkāppiyam text and in Sangam literature. There is one instance of *ōr* occurring before consonant in Tolkāppiyam text and are some 25 instances in Sangam literature. So also *or* occurs before vowel in two instances in Sangam literature (Akanāṉūṟu 257. 4, Kalittokai 12.18.) (S. V. Shanmugam 'Tamil Numerals')

16. The explanation is based on the interpretation given by Prof. T. P. Meenakshisundaram.

bound forms and there are irregularities of alternation in such cases like *varuvāṉ* 'he will come', *vantāṉ* 'he came'. (2) *paṇputtokai:* This compound is made up of an attribute and a head. Here it is stated that the attribute should be really a noun agreeing in gender with the head but there is no such gender suffix appearing in the compound. Such agreement is necessary only in Sanskrit and not in Tamil. It is not clear why Tolkāppiyar emphasises this concordance. (3) *viṉaittokai* : This is a compound of a verbal root and a noun; the root has the force of a past relative participle and non-past relative participle. As there are these two possibilities, the compound cannot be definitely split; because Tolkāppiyar feels that it is a compound depending on the context for its specific meaning and (4) Compounds by numerals coming before other numerals: These numerals are so transformed that it is difficult to recognise the base forms. There may be other such combinations. All these are considered to be *marūu* 'fused terms which are beyond recognition as two different words'. Their sandhi combination is not to be traced in the chapters on sandhi.

On this basis, certain sutras had already been referred to in this treatise as not probably belonging to the age of Tolkāppiyar.

11.9 The last sutra gives the general exception (S.483). But one wonders why there should be the former sutra S.405 at the end of *puḷḷimayaṅkiyal* which can be safely omitted in view of this sutra especially when there is no such sutra at the end of *uyirmayaṅkiyal.*

The meaning of the sutra is as follows: "If sandhi changes not mentioned here occur in literary composition and

also in colloquial usage in such a way that the succeeding word and the preceding word cannot be recognised, these seem to follow rules which look different from what had been described in this book (i.e. Tolkāppiyam). The scholars should after careful research know the truth about them from usage".

The commentators show many examples under this rule as being exceptions to the various sutras. Evidently, they are post-Tolkāppiyam usages or dialectal variations, and these are listed in the last chapter of this treatise (See Chapter. XIII).

Twelve.

THE ALPHABETIC ARRANGEMENT

12.1 One significant contribution of Naccinārkkiniyar is the explanation he offers for the arrangements of sounds in the Tamil alphabet[1]. He assumes, though without reason, that Tolkāppiyar specifically refers to that particular order in which the sounds occur in the Tamil alphabet.

12.2 According to Naccinārkkiniyar, the short vowels are mentioned first before their long varieties because one has to speak of one mātra before proceeding to speak of two mātras of length. He raises the question whether the sounds of two mātras may not be stated first and sounds of one mātra mentioned later, and answers by saying that after all two is a combination of one with one.. Any number more than one is thus a combination of many ones.

So far, his explanations refer to an arrangement of the short vowels before the respective long vowels. But this does not explain why *e* precedes *i* etc. The explanation for

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1. Nac. eḻuttu. P. 18 (S. 1)

the *i* following *a* is that both of them are similar in number (probably he means by this only quality), articulation and meaning. The articulation is similar because Tolkāppiyar adds that both result from the opening of the mouth (S. 85 and 86). Since both these sounds occur as demonstratives, there is similarity in meaning also. After *a* and *i* comes *u* which is similar to both these sounds in quantity and meaning but differs from them in articulation. Hence the order *a*, *i*, and *u*. *e* follows *u* because the articulation of *e* is similar to *a* and *i*; *ai*, because of its nearness in articulation to *e*, comes after *e*; so does *au* after *o* on similar grounds. Since *o* occurs as a monosyllabic word only in combination with a consonant as in *no* 'suffer' and not by itself, it is considered as having less importance and so it is placed after *ai*. *a*, *i*, *u* and *e* form a pattern of quadruples of bases as demonstratives and interrogative occurring themselves without combining with consonants as in words like *ak koṟṟaṉ* 'that koṟṟaṉ', *ikkoṟṟaṉ* 'this koṟṟaṉ' etc. *a*, *ā*, *u*, *ū*, *e*, *ē*, *o*, *ō* and *au* resemble among themselves in forms, *a*, *ā* forming one group, *u*, *ū* forming the second *e*, *ē* the third *o*, *ō* and *au* the last group, while *i*, *ī* and *ai* do not have that resemblance among themselves. Besides, when these long vowels occur as *aḷapeṭais*, the long and short vowels become united in a stretch of single sound. In the demonstratives *a*,*i*, and *u* while getting lengthened into *ā*, *ī*, and *ū*, there is similarity or identity both in meaning (e.g. *āṅku* and *anku* mean there) and in their behaviour in sandhi as we learn from *Uyirmayaṅkiyal* (e.g. S. 221). He points out that Tolkāppiyar always refers to these sounds without disturbing the order mentioned here.

Proceeding to discuss the consonants, he points out that the plosives are followed by their respective nasals because of

their resemblance in the articulation and their behaviour in sandhi. The order of these plosives and their nasals is shown according to their positions of articulations, thus the velar comes first followed by palatal,alveolar, dental and finally labial. *ṟ* and *ṉ* are articulated in the same place. Besides, *ṉ* alternates with *ṟ* (S. 332) in sandhi and hence they are grouped together. Further these two sounds are not immediately following the above sounds but are placed at the end to indicate that they are peculiar sounds in Tamil.

The semivowels are placed in between *p*, *m* and *ṟ*, *ṉ*. Among these, *y* has the first place because like vowels, it is voiced sound with the vibrations of air coming from the throat and forcing on the palate. *r* does not resemble *y* in articulation but resemble it in sandhi (S. 362). Therefore, it is placed adjacent to y. *l* and *v* resemble neither in articulation nor in sandhi but in a number of places like *colvalitu* 'words (are) strong' and *kalvalitu* 'stones (are) strong', they cluster together and therefore, they are placed together.[2] *ḻ* and *ḷ* have no relationship whatsoever; but the metrical resonance in the statement *iṭaiyeḻutteṉpa yaralavaḻaḷa* (S.21) 'semivowels are *y*, *r*, *l*, *v*, *ḻ* and *ḷ*' might have inspired Tolkāppiyar to put them together.

In this explanation of Nacciṉārkkiṉiyar, there are some difficulties. One is that he is confusing the written script with the sound, especially when he is referring to the shape of the letters like *i*, *ī* etc. The second is that in considering the sounds per se it will not be proper to take into consideration the meaning or their behaviour in sandhi; for these can be

2. Nacciṉārkkiṉiyar recognizes the clusters only in single words (3. P. 43) but here the reference is against his own view.

spoken of only in words. Thridly, the reason for placing *o* after *ai* as due to its occurrence with *ṇ* only in monosyllabic words, the grouping of *l* with *v* on the basis of the frequency of clusters with these sounds, and the reference to metrical assonance in support of placing *ḷ* after *ḻ* present themselves as freak arguments.

12.3 Civañāṉamuṉivar while discussing the arrangement of alphabet rejects all these considerations as foreign and says that it is the articulations alone that should decide whether certain sounds form a class or not[3]. He is giving the following reasons for the arrangement of sounds. The places of articulation starting from the root of the tongue to the lips are responsible for the order of consonants *k* to *m*. *y, r, l* and *v* according to him, are articulated at the back of the palate, the centre of the palate, the teeth and the lips respectively and therefore, their arrangement follows this order for their articulations. *ḻ, ḷ, ṟ* and *ṉ* are placed at the end of the alphabet to show that they are special sounds to the Tamil language. But this does not explain *ḷ* coming after *ḻ*. His explanation is that *ḷ* is unimportant, since it is only an alternant of *l* in Sanskrit.

Passing to the consideration of the arrangement of vowels, he first points out that the vowels as a class precede the consonants because the former can be pronounced independently, whilst consonants cannot be done so except with the assistance of *a*. *a, i,* and *u* are placed in that order according to the positions of articulation. The long vowels are the combination of two respective short vowels, a combination like mixing water

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3. Civañāṉamuṉivar 'Tolkāppiya mutal cūttira virutti' P. 24f.

with water. The question arises, if the long vowels are no more than two short vowels then the rules relating to the short vowels should be applicable to long vowels also. He explains that since the rules are applicable only to short vowels as such, standing as separate units, those rules cannot be applicable to a combination of short vowels. Further, he says that long and short vowels give different meanings in words, which means that these two contrast in the same position. *aḷapeṭai* 'lengthened long vowels' cannot be considered to be a separate sound as pluta in Sanskrit, because in Tamil they do not form words different from the words formed from their respective long vowels.

It may appear that Civañāṉamuṉivar is contradicting himself when he brings in the argument based on word-formation to which he has taken objection to, when used by Nacciṉārkkiṉiyar. He, perhaps, is trying to express in a way what the modern linguists refer to by the term phoneme. His argument will amount to saying that long vowels are phonemic and *aḷapeṭais* are not. So, the modern phonemic theory is clearly anticipated here by Civañāṉamuṉivar but he owes this to the author of another grammatical work, *pirayōkavivēkam* written in seventeenth century[4].

e, according to him is a combination of *a* and *i*. *o* is similarly a combination of *a* and *u*; therefore, the precedence of *e* over *o* and the occurrence of both of them after *a*, *i*, and *u* with their respective long vowels can be justified.

ai is the combination of *a*, *y* and *i* and therefore it is placed after *e* because of similarity. Likewise *au* is the combination of *a*, *v* and *u* and is placed after *o*.

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4. Pirayōkavivēkam P. 6. (S. 5. Commentary).

He is inspired, as he himself admits, by Patanjali and Kaiyata, the Sanskrit commentators who have compared sandhi aksharas, the conjoint sounds, with Narasimha, God Vishnu's incarnation as half-human and half-lion.

Short *e* and short *o* are absent from Sanskrit and hence should be considered as peculiar sounds in Tamil like *ṟ* and *ṉ*· As *ṟ* and *ṉ* are placed at the end of the Tamil alphabet because of this reason these vowels also should have their place at the end. Civañāṉamuṉivar's explanation is that these sounds are not confined to Tamil alone because they occur in Prakrits and also in the chanting of Sāma Vēda according to a particular school.

One who refuses to accept anything except the articulation for the arrangement of sounds should not bring in the consideration of importance and unimportance of sounds especially when such judgements are based on another language like Sanskrit. *ḻ* and *ḷ* are phonemes in Tamil unlike in Sanskrit. But in, fairness to Civañāṉamunivar, one has to admit that all the commentators seem to appeal to Sanskirt usage as a conclusive argument in all these matters and he could not escape this practice.

There is another incongruity in Civañāṉamuṉivar's explanation with reference to the articulation of *y*. Probably, he follows Naṉṉūl where it is stated that *y* is articulated by the back portion of the tongue and back portion of the palate and it is not correct.

12.4 Venkatarajulu Reddiar's explanation[5], as far as *a*, *i* and *u* are concerned, does not differ from Civañāṉamuṉi-

5. Venkatarajulu Reddiar, op. cit. P. 7.

var but he introduces the conception of the importance of placing *a* first because it requires no other effort except the opening of the mouth. Again he brings the conception of importance with reference to those three vowels which because of this importance, become demonstratives. *e* is, according to him, articulated at the place where *i* is born. Probably, he means that *e* and *i* are front vowels. He adds, however, that *e* is at times the alternate form of *i* in such words as *civappu* and *cevappu* both of which mean red. *e* is relegated because of this unimportance, to a place after *i*. He does not stop with giving examples in Tamil, but proceeds to quote from Kannada and Telugu as well, for this kind of alternation. He does not show that this alternation is as old as the language or its alphabet. It will be seen here that he, unlike Civañāṉamuṉivar, does not accept *e* and *o* as diphthongs. *o* is a back vowel like *u* and the alternant of *u* in words like *tuḷai* and *toḷoi* 'hole' and therefore, according to him, it is relegated to a place after *u*. *ai* is a combination of *a* and *i* (S. 54) whereas *au* is a combination of *a* and *u* (S. 55). It will be seen that he does not agree with Civañāṉamuṉivar that *y* and *v* occur in *ai* and *au* respectively.

He follows both Nacciṉārkkiṉiyar and Civañāṉamuṉivar to explain the order of the plosives and the nasals and says that their order in the alphabet follows the order of the articulation of sounds. *y* is placed first amongst semivowels on grounds similar to that mentioned by Nacciṉārkkiṉiyar. He says that *r* and *ḻ* according to the order of articulation should appear in the order of *ḻ* and *r* but because *ḻ* does not occur in Sanskrit, it is placed after the semivowels found in Sanskrit that is, after *y*, *r*, *l* and *v*. *r* is after *y* according to their places of articulations. *ḷ* must be placed after *r* but it is relegated

to the last position after ḻ because it is not an independent sound in Sanskrit. Eventhough ḻ and ḷ are not in Sanskrit ḷ is placed after ḻ on the basis of their place of articulation. *v* being a labio dental consonant comes after the dental *l*.

Venkatarajulu Reddiar could have simplified the statement by first explaining the sounds common to Tamil and Sanskrit alphabets, according to the order they occur in Sanskrit and then explaining the position of ḻ, ḷ, ṟ and ṉ which are peculiar to Tamil.

The one objection to this kind of explanation is that it is based on the Sanskrit alphabet. Probably it is implied in this kind of explanation that the arrangement of the Tamil alphabet is borrowed from Sanskrit and to this, sounds peculiar to Tamil are added at the end except in the case of *e* and *o* which naturally preceded their respective long vowels. In the absence of this implied statement being clarified, the whole explantion is so confusing.

12. 5. In giving this explanation for the order of the sounds in the alphabet, one important thing may be mentioned. Tolkāppiyar speaks of the Tamil alphabet as beginning with *a* and ending with ṉ in the first sutra. It is the commentators who have given various reasons for the order of letters in the alphabet.

Regarding the Tamil alphabet ending in ṉ, Iḷampūraṇar has pointed out that the mention of ṉ particularly, is because ṉ denotes the masculine gender[6]. According to him, men only are capable of attaining salvation. Naccinārkiniyar, however, gives a different reason for this[7]. He points out that ṉ is a

6. Iḷam. eḻuttu. P. 7 (S.1).
7. Nac. eḻuttu. P. 17 (S.1).

peculiar sound to Tamil and that is why special mention of that sound has been given by Tolkāppiyar in his sutra[8].

The question next to be solved is why the plosives precede nasals and why the semi vowels are mentioned last. It is a convention amongst these commentators to explain the order in which things are mentioned. Iḷampūraṇar reasons out his imagination. He takes the initial sound as his basis for argument. Because, four plosives (*k*, *c*,*t* and *p*) occur initially, the plosives are placed first, three nasals only (*ñ*, *n* and *m*) occur as initial and therefore they are mentioned next. In the same way, Naccinārkkiniyar adds that amongst the semi vowels only two (*y* and *v*) occur as initials, and that is why they are mentioned last.

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8. There is another explanation in the edition of Naccinārkiniyar "Because of its importance in occurring as masculine suffix, it is mentioned. The importance is that man alone is capable of attaining salvation". (Ibid. P. 18). The explantion is out of place here for one thing; for another no Hindu can agree to this proposition that man alone can reach salvation. Naccinārkkiniyar is a Hindu and therefore he cannot have written this statement. As already noted, it is found in Iḷampūraṇar's commentary and because Naccinārkkiniyar is in the habit of transcribing Iḷampūraṇar's commentary wherever he does not differ from him, a copyist or student familiar with both the commentaries perhaps, after learning both the commentaries by heart, made the mistake of introducing this statement of Iḷampūraṇar's commentary into Naccinārkkiniyar's work. It is only the digambara Jains who accept this view. It is not so very clear whether Iḷampūraṇar was a digambara Jain or not.

Thirteen

COMMENTATORS' CONTRIBUTION

13.1. Eventhough the metric dating of Tolkāppiyam has not been done satisfactorily, most of the scholars are of the view that it is anterior to Sangam literature which is considered to belong to the period immediately preceding or following Christ.

Iḷampūraṇar, the first commentator of Tolkāppiyam should have lived in the tenth century and Nacciṉārkkiṉiyar the other commentator in the fourteenth century.

It is to be noted that Tolkāppiyar has pointed out at the end of some chapters that there may be usages in the literary and colloquial languages not explained by him. So, the commentators try to illustrate them not only under the exceptional sutras of each chapter but also under many sutras in the body of Tolkāppiyam by way of reading implications in the sutras because of the change in the order of enumeration (e.g. S. 131, 147, 161 etc.) or an extra word or phrase in the sutra (e.g. S. 151, 246, 397 etc.) or because of *uttis* 'intutive perception of what is fitting' such as *aruttāpatti* 'assumption of something to account for another thing which is otherwise unaccountable' (e.g. S. 214, 466 etc.), *ilēcu* (e.g. S. 192, 265 etc.),*oṉṟeṉamuṭittal* (e.g. S. 211, 304, 325 etc.) etc. It is not clear whether the commentators are aware that some usages belong to the language of Tolkāppiyam and others to later period. However, an attempt is made here to classify the

observation of commentators into (1) the additional rules which belong to the language of Tolkāppiyam and (2) the new usages which belong to later period, and this is only tentative. Examples are given, wherever possible, in the foot-note for the first category from Tolkāppiyam text itself and for the second category from literatures.

The observations made in *e̲ḻuttatikāram*, to whichever level of analysis it may belong to, are included here. The observations are listed under four columns thus: (1) the serial number, (2) the name of the commentator who first made the observation (3) the number of sutra under which the observation is made, and (4) the observation.

Here, 'I' stands for Iḷampūraṇar and 'N' for Naccin̲ārkkiniyar.

13.2. Phonology:

1	2	3	4
1.	I.	68	Shorter *u* pronounced without lip rounding.
2.	I.	430	*uḷporuḷ* 'existing thing' pronounced without hiatus.
3.	N.	50	Infinitives (verbal participle of *ceya* pattern) pronounced with *paṭuttal ōcai* 'falling tone'
4.	N.	52	*m* after *ṇ* pronounced short : *maruṇm* 'will be puzzled'[1]
5.	N.	291	*koḷalōkoṇṭān* 'he did not get' pronounced as one word.
6.	N.		*Āytam* pronounced as voiced *h* and *āyta aḷapeṭai* is being introduced (vide. 4. 5. P. 68)

1. *uṇm* 'will be eaten' (Pur̲anān̲ūr̲u 178.5).

7. N. *Aḷapeṭai* becomes monothong (vide. 5. 7. P. 71).
8. N. The short *u* and the shorter *u* become phonemic (vide. 4. 5. P. 58)
9. Change in the distribution of phonemes (vide. 5.8. P. 77–78).

13.3. Morphophonemics:

i. Change in the form of the word.

1.	I.	231	*māaṅkōṭu* 'branch of mango tree' > *māṅkōṭu*[1]
2.	I.	324	*nuṅkai* 'your hand' > *uṅkai*[2]
3.	I.	437	*pa°°tu* in *irupa°°tu* 'twenty', *muppa°°tu* 'thirty' etc. becomes *patu*
4.	I.	481	*pūkkēḻ toṭalai* 'garland of flowers' (Akanāṉūṟu. 28.9). N. *tuṟaikēḻ ūraṉ* (Aiṅkuṟuṉūṟu. 11.2).
5.	N.	129	The augment *keḻu* has the alternant form *kēḻ* in poetry.
6.	N.	166	*kalapākku* 'one kalam of arecanut' > *kalappāku*
7.	N.	299	*verin* 'back' > *verinu* (Akanāṉūṟu 65.14)
8.	N.	375	*pūlaṅkōṭu* 'branch of *Pūl* tree' > *pūlāṅkōṭu*
9.	N.	382	*tev muṉai* 'battle front' > *temmuṉai* (Patiṟṟuppattu 80.7)
10.	N.	405	*patiṉēḻ* 'seventeen' > *patiṉēḻu*

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1. *num* > *um* is found in Maṇimēkalai 11.141, 26.32.
2. *māṅkāy* 'Mango' Kalittokai 109.23

ii. *marūu* forms:

1.	I.	483	*arumaruntaṉṉa* 'like rare medicine' > *arumantaṉṉa*[1]; *potuvil* 'common place' > *potiyil* (Kuṟuntokai 15.2); *malayamāṉ nāṭu* 'country of Malayaman' > *malāṭu*; *cōḻanāṭu* 'chola country' > *cōṇāṭu*[2] (Paṭṭinappālai 28; Cilappatikāram 29–2–5)
2.	N.	130	*puḷiyaṅkāy* 'tamarind' > *puḷiṅkāy*[3]
3.	N.	171	*orumāvarai* 'one *mā* and a half' > *orumārai*; *kalamarai* > *kalārai* 'one kalam and half '
4.	N.	243	*uti* 'a tree' > *oti*
5.	N.	338	*vēṭṭuvakkumari* 'girl of Vēṭṭuva clan[4]
6.	N.	405	*maṇṇaṅkaṭṭi* 'clod' > *maṇṇāṅkaṭṭi*; *kāṉaṅkōḻi* 'wild fowl' *kāṇāṅkōḻi*; *kallampāṟai* 'hard stone' > *kallāmpāṟai*

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1. This change can be explained as due to to the loss of *u* (note *taruvāy* > *tarvāy*. Kalittokai. 98.1) and the disappearance of *r* (*uruṇṭai* > *uṇṭai* 'round'. Tiruvācakam. 3.1). *arumanta* for *arumarunta* is found in Tiruvācakam. 11.5.1.
2. This is due to the loss of final vowel and then *ḻ* > *ḷ* (S. V. Shanmugam 'A modern evaluation of Vīracoḻiyam).
3. *puḷiṅkaṟi* 'dish prepared with tamarind' – South Indian Inscriptions, Vol. XIV. 16a. 338 (9th century).
4. Naccinārkkiṉiyar thinks *vēṭaṉ* is the original form (Nac. eḻuttu. P. 200. foot-note) but the form *vēṭṭuvar* is found in Tolkāppiyam text S. 967.

7. N. 436 *mūvuḻakku* 'three *uḻakku*' > *mūḻakku*; *mūvālākku* > *mūḻākku* 'three *āḻākku*'[1]

8. N. *pāṇṭiyaṉāṭu* 'Pandya country' > *pāṇṭiṉāṭu* *toṇṭaimāṉāṭu* 'country of Tontaiman' > *toṇṭaiṉāṭu*

i. Morphophonemics Alternation:

Additional sandhi rules: These are applicable to the language in Tolkāppiyam.

1. I. 114 *-ṉ*, *-l*, and *-ḷ* change into *ṟ*, *ṟ* and *ṭ* before case suffixes beginning with plosives[2] *poṉ+ku>poṟku* 'to the gold'; *pon+kaṇ >poṟkaṇ* 'in the gold'; *vēl+ku>vēṟku* 'to the lance' *vāḷ+ku> vāṭku* 'to the sword'; *vāḷ+kaṇ>vāṭkaṇ* 'in the sword'.

2. I. 130 The loss of *-m* of augment *am* before words beginning with vowel. *puḷiyam+ilai> puḷiyailai* 'leaves of tamarind.

3. 140 Specification of the glides (see 7.7. P. 112)

4. I. 158 *viṉai* 'verb', *iṭai* and *uriccol* ending in *-i* and *-ai* have the doubling of the following

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1. *mūḻakku* is found in South Indian Inscription. Vol. XIV. 38.16. (S. V. Shanmugam, 'Epigraphy and Tamil linguistics').

2. *oruvaṉ+ku>oruvaṟku* 'to one man' (Tolkāppiyam 665); *eyil+ku>eyiṟku* 'to the fort' (Ibid. 1013); *avaḷ+ku>avaṭku* 'to her' (Ibid. 1106.3)

plosive. *ollai+koṇṭāṉ*[1] > *ollaikkoṇṭāṉ* 'He got immediately' *tillai+collē* > *tillaiccolle*[2] (Tolkāppiyam. S. 738.) *paṉai + tōḷ* > *paṉaittōḷ* 'big shoulder'[3]

5. I. 203 — *uriccol* ending in *–a* can have the doubling of the following plosive at the nasal increment.

taṭa+kai > *taṭakkai* 'big hand' (Kuṟuntokai. 332.4)

tava+koṇṭaṉ > *tavakkoṇṭāṉ* 'he got larger (amount)'

N. — *vaya+kaḷiṟu* > *vayakkaḷiṟu* 'strong elephant' *vaya+puli* > *vayappuli* 'strong tiger' (Puṟanāṉūṟu. 371.14)

kuḻa+kaṉṟu > *kuḻakkaṉṟu* 'small calf'

taṭa+cevi > *taṭañcevi* 'big ear'[4]

kama+cūl > *kamañcūl* 'the teaming appearance of the cloud before rain' (Kuṟuntokai 158.3)[5]

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1. This is shown for verb plus verb sandhi but *ollai* is not a verb.
2. Eventhough *tillai* is *iṭaiccol*, but it is used here as noun only.
3. *paṉaittāḷ* 'big feet' (Puṟanāṉūṟu 72.3).
4. *taṭantāḷ* 'big feet' (Ibid. 97.17).
5. There is one *uriccol*, *kamam* 'abundant' (Tolkāppiyam S. 838) and *kamañcūl* can be taken as *kamam+cūl*.

6.	I.	222	The negative relative participle of *ceyyā* pattern can have the doubling of the following plosive, *uṇṇā + koṟṟaṉ > uṇṇāk-koṟṟaṉ* 'koṟṟaṉ who does not eat'[1]
7.	I.	310	The loss of final *-m* before the non-stops in case relationship: *maram+ñāṇ > mara-ñāṇ* 'wooden bow'; *maram+yāḻ > marayāḻ* 'wooden flute'; *maram+aṭai > maravaṭai*
8.	I.	361	The doubling of the following plosive (i) when the preceding word is verbal participle ending in *-y*: *tāy+koṇṭāṉ > tāykkoṇṭāṉ* 'having jumbed he got'; *tāy+ceṉṟāṉ > tāycceṉṟāṉ* 'having jumped he went'. (ii) *irupeyaroṭṭup paṇputtokai* (appositinal construction)[2]: *poy+col > poyccol* 'lie word'; *mey +col > meyccol* 'true-word'
9.	I.	392	*ēḻ* 'seven' changes into *eḻu* before nouns other than weights and measurements beginning with non-plosives[3]: *ēḻ+ñāyiṟu > eḻuñāyiṟu* 'seven suns' *ēḻ+nāḷ > eḻunāḷ* 'seven days'; *ēḻ+vakai' > eḻuvakai* 'seven kinds';
10.	I.	405	*-r* ending in non-case relationship undergoes

1. *ariyā+poruḷ > ariyāpporuḷ* 'unknown things' (Tolkāppiyam 514), *oṉṟā+tamar > oṉṟāttamar* 'relatives who do not join' (Ibid. 987).
2. *mey+peyar > meyppeyar* 'true name' (Tolkāppiyam. 1033).
3. *ēḻ+nilam > eḻunilam* 'seven lands' (Ibid. 1420)

(i) no-change: *nīr+kuṟitu>nirkuṟitu*' water is short'

(ii) optinal change of doubling: *vēr+kuṟitu >vērkkuṟitu~vēṟkuṟitu* 'the root is short'

-ḻ ending in non-case relationship undergoes

(i) no-change: *yāḻ+kuṟitu>yāḻkuṟitu* flute is short'

(ii) optional change of doubling: *vīḻ+kuṟitu>vīḻkkuṟitu~vīḻkuṟitu* 'the air - root is short'

11. I. 427 verbal participle of *meṉṟoṭar* shorter *u* undergoes no-change when followed by words beginning with plosives[1]: *iruntu+koṇṭāṉ>iruntukoṇṭāṉ* 'having waited he got'

N. *vantu + pōyiṉāṉ>vantupōyiṉāṉ* 'having come he went'

I. verbal participle of *vallorruttoṭar* shorter *u* can have the doubling of the following plosive[2]: *cettu+kiṭantāṉ>cettukkiṭantāṉ* 'He lay dead'

N. *naṭṭu+pōṉāṉ>naṭṭuppōṉāṉ*'having planted he went'

12. I. 446 The sandhi changes when the numeral is followed by another numeral: *oṉṟu +*

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1. *eḻuntu + puṟanticaikkum > eḻuntupuṟanticaikkum* 'having risen it will sound outside' (Ibid. 1026).

2. (*vāḷ*) *vāyttu+kaviḻtal>vāyttukkaviḻtal* (Ibid. 1006.15).

ōro<u>n</u>ṟu 'one each'; *o<u>n</u>ṟu+iraṇṭu>ōriraṇṭu* 'one two'; *iraṇṭu+o<u>n</u>ṟu > iro<u>n</u>ṟu* 'two one'; *iraṇṭu+mū<u>n</u>ṟu>irumū<u>n</u>ṟu* 'two threes' etc.[1]

13. N. 114 *uyartiṇai* nouns and *viravuppeyar* no-change when followed by locative suffix *kaṇ*[2]: *aracar* 'king' *+kaṇ>aracar kaṇ*; *kōtai* 'girl or flowers'*+kaṇ>kōtaikaṇ*;

14. N. 260 *u* can be lengthened before *u*: *taru+um> tarūum*; *varu+um>varūum* (Tolkāppiyam S. 305, 321 etc)[3]

314 *paṇpup peyer* ending in *-m* loses its final sound and the following plosive doubles: *vaṭṭam + taṭukku> vaṭṭattaṭukku* 'round mat'; *caturm +palakai > caturappalakai* 'square plank'; *āytam + puḷḷi>āytappuḷḷi* 'the consonant *āytam* (Tolkāppiyam. S.38 and 390); *akaram+mutala* 'the letter *a* (is) beginning' (Tirukkuṟaḷ.1.)

Relative participle ending in *-m*:

i. changes into homorganic nasal with the following plosive[4]: *kollum+koṟṟa<u>n</u>>*

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1. *irumū<u>n</u>ṟu* 'two threes' (Tolkāppiyam. 1006.21); *irēḻ* 'two sevens' (Ibid. 1004.8); *mūvaintu* 'three fives' (Ibid. 1296.1);*nāliraṇṭu* 'four twos' (Ibid. 1239.1)etc.
2. *avar* 'they'*+kaṇ>avarkaṇ* (Tolkāppiyam. 1117.2)
3. *toku+um>tokūum* (Ibid 350).
4. *cellum+tēyam>celluntēyam* 'visiting country' (Ibid. 986. 2); *viḷaṅkum+ciṟunutaḷ>viḷaṅkuñciṟunutal* 'shining small fore-head' (kuṟuntokai 129.5)

kolluṅkoṟṟaṉ 'the *koṟṟaṉ* who kills'; *uṇṇum* + *cāttan* > *uṇṇuñcāttaṉ* 'Cāttaṉ who eats' etc.,

ii. loss of final *m: kavaḷamāntum* + *malaikeḻunaṭāṉ* > *kavaḷamāntumalaikeḻunā-ṭaṉ* 'Nāṭāṉ belonging to mountainous region' (Kuṟuntokai. 180. 4); *porum* + *māran* > *porumāraṉ* 'Maran who fights'; *tāvum* + *pari* > *tāvupari* 'horse which jumps'[1]

iii no-change[2]: *kollum* + *yāṉai* > *kollum-yāṉai* 'elephant which kills'; *pāṭum* + *pāṇaṉ* > *paṭumpāṇaṉ* 'minstrel who sings.

ii. Non-operation of the sandhi of Tolkāppiyam (historically later). The examples given under each rule illustrate the non-operation of the concerned rule.

1.	I.	133	Loss of *a* of *attu* before *a* ending word: *viḷa* + *attu* > *viḷavattu*, N. *ata* + *attu* > *ata-vattu*.
2.	I.	226	The addition of *a* after long monosyllabic words.[3]
3.	I,	309	The final -*ṇ* of *eṇ* 'sesame seed' in non-case relationship changes into *ṭ*. *eṇ* + *kaṭitu* > *eṇkaṭitu* 'sesame seed is strong'.

1. All these cases can also be taken as root plus noun and in that case there is no sandhi change.
2. No–change rule is applicable before nasals and semivowels and in that case can be *kollum yāṉai* interpreted as having undergone the loss of final nasal and the addition of homorganic nasal.
yakaram + *iṟuti* > *yakaṟa iṟuti* (Tolkāppiyam S. 357)
3. *kā* + *ōlai* > *kāvōlat*' 'ripe palm leaf' 'Naṟṟiṇai. 33.3.

4 I. 315 *akam* loses its final *-kam* and gets *m* before *kai*: *akaṅkai* 'palm'

5. I. 333 The final-*ṉ* of *āṉ*, *iṉ* and *muṉ* undergoes change: *āṉ+koṇṭāṉ>āṉkoṇṭāṉ* 'He got it there, ; *īṉ+koṇṭāṉ>iṉkoṇṭāṉ* 'he got it here' ; *muṉ+koṇṭāṉ>muṉkoṇṭāṉ* 'He got it early' ;

6. I. 334 The final *-ṉ* of *vayiṉ* preceded by demonstrative base and interrogative base : *avvayiṉ+koṇṭāṉ>avvayiṉkoṇṭāṉ* ; *ivvayiṉ +koṇṭāṉ>ivvayiṉkoṇṭāṉ*; *evvayiṉ+koṇṭāṉ evvayiṉkoṇṭāṉ* ;

7. I. 347 When personal name is followed by *tantai* 'father' the final *-aṉ* of the preceding word and the initial t- of the succeeding word disappear: *cāttaṉ+tantai>cāttaṉṟan tai* 'father of cāttaṉ' ; *koṟṟaṉ+tantai> koṟṟaṉṟantai* 'father of koṟṟaṉ'

8. I. 348 *ātaṉ* or *pūtaṉ* is followed by *tantai*, there will be loss of *t* of the preceding word and of the succeeding word in addition to the above changes: *ātaṉ+tantai>ātantai* ; *pūtaṉ+tantai>pūtantai* (non-operation of additional change only).

9. I. 391 The loss of final of *ēḻ* 'seven' (after becoming *eḻu* according to S. 389) *u* before *āyiram* (S. 391): *ēḻ+āyiram>ēḻāyiram* 'seven thousand'.

10. I. 467 The loss of final *u* of *āṟu* 'six' before *āyiram*: *āṟu+āyiram>āṟāyiram.*

11. N. 171 Loss of final consonant preceded by long syllable: (S. 160) *vaḷ+tāṉai*> *vāṭṭāṉai* 'sword-army'; *tōl+tanṭai*> *tōṟṟanṭai* 'a leather ornament'

12. N. 261 The lengthening of final *u* and the addition of *u* in *-ḻu* ending words: *kuḻu+tōṟṟam*>*kuḻuttōṟṟam* 'appearance of assembly' *paḻu+kāy*>*paḻukkāy* 'vegetable of *paḻu*'[1]

13. N. 483 Long monosyllabic *ē* 'command' gets *e* in case relationship: *ē+peṟṟa*>*ēppeṟṟa* 'received command' (Cīvakacintāmaṇi. 2965).

iii. New usages

1. I. 120 *i* of *iṉ* lost before *mā* 'animal': *mā+iṉ+* case suffix>*māṉ*+case suffix.

2. I. 124 *-ṉ* of augment *iṉ* optionally changes into *ṟ* before nouns: *paṟamupiṉ+pāri*>*paṟampiṟ-pāri* 'Pāri of Paṟampu hill'[2] N. *kuṟumpiṉ+koṟṟaṉ* > *kuṟumpiṟkoṟṟan* 'Koṟṟan of Kuṟumpu'; *vaṇṭiṉ+kāl* > *vaṇṭiṉkāl* 'the legs of the bee'; *kurukiṉ+kāl*>*kurukiṉkāl* 'the legs of crane'.

3. I. 133 The loss of *a* of *attu* even before vowels other than *a*: *aṇṇā+attu*>*aṇṇāttu* (*ēri*) 'Aṇṇa's (tank); N. *tiṭṭā+attu* > *tiṭṭāttu* (*kkuḷam*).

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1. *paḻu+maram*>*paḻumaram* 'tree *paḻu*'. Puṟanāṉūṟu 183.3.

2. *paṟampiṟkōmāṉ* 'king of Paṟampu' (Puṟanāṉūṟu 158.4).

4. I. 145 Certain (long) monosyllabic words and disyllabic words[1] have (i) the optional doubling of the following nasal: *pū+ñeri > pūññeri~pūñeri* 'piece of flower'; *pū+nuṉi > pūnnuṉi ~ pūnuṉi* 'top of the flower'; *kāy+ñeri > kāyññeri ~ kāyñeri* 'piece of vegetable'; *kāy+nuṉi > kāynuṉi* 'tip of the vegetable'; (ii) compulsory doubling: *kai+ñeṟittār > kaiññeṟittār* 'he broke the hand' *kai+maṟittār > kaimmaṟittār* 'he waved the hand' *mey+ñāṉam > meyññāṉam* 'true knowledge' *mey + nūl > meynnūl* 'true work'; Naccinārkkiṉiyar says here that these are considered by some as forced pronunciation.

5. I. 147 In few cases, –*ṇ* changes into *ṭ* in non–case relationship: *cāṇ + kōl > cāṭkōl* 'span measure'

6. I. 151 (S. 111). Monosyllabic imperative verbs have always the doubling of the following plosive: *tu+koṟṟā > tukkoṟṟā* 'eat *Koṟṟa*'; *no+koṟṟā > nokkoṟṟā* 'suffer Koṟṟā'; *no+ñeḷḷā noññeḷḷā* 'suffer ñeḷḷā' *no+nākā > nonnākā* 'suffer Nāka'; *nil* 'stand' has the optional change of final *-l* into *ṟ* : *nil + koṟṟā nil koṟṟā~niṟkoṟṟā* 'stand Koṟṟā'

7. I. 153 *uyartiṇai* nouns undergo the following changes: (i) the loss of final consonant of the preceding word: *kapilar+paraṇar >*

1. Disyllabic words are really closed monosyllabic words.

kapilaparaṇar 'Kapilar and Paranar'; *iṟaivar+neṭuvēṭṭuvar* > *iṟaivaneṭuvēṭṭuvar*; *maruttavar+māṇikkar* > *maruttuvamāṇikkar* 'Manickam the physician' (ii) the loss of final consonant and the doubling of the following plosives: I. *ācīvakaṉ+paḷḷi* > *ācīvakappaḷḷi* 'temple of Arhat'; N. *nikkantaṉ + kōṭṭam* > *nikkantakkōṭṭam* temple of Nikkandas' (Cilappatikāram. 9.13).

1. The loss of final consonant and the optional doubling of the following plosive: *kumaraṉ + kōṭṭam* > *kumarakōṭṭam* ~ *kumarakkōṭṭam* 'Murugan temple' *piraman+kōṭṭam* > *piramakōṭṭam* ~ *piramakkōṭṭam* 'Temple of Pirama';

I. When the preceding word is *uyartinai* finite verb (i) no-change: *uṇku+koṟṟā* 'I (will) eat Koṟṟā'; *uṇpēṉ+koṟṟā* > *uṇpeṉkoṟṟā* 'I (will) eat Koṟṟā'; *uṇṭir+cāṉṟīr* 'You (pl) scholars ate' > *uṇṭircāṉṟir*; *uṇṭār +caṉṟār*' They scholars ate' > *uṇṭārcāṉṟār* (ii) change into homorganic nasal: *uṇṭaṉem+cāṉṟēm* > *uṇṭaṉeñcāṉṟēm* 'we, schoars ate'; (iii) the loss of final consonant of the preceding word: *uṇṭēm+nām* > *uṇṭēnām* 'we ate'

8 1. 166 The doubling of initial *k* of *kūṟu* 'less than' if it is preceded by names of measurements: *uri+kūṟu* > *urikkūṟu* 'Less than *uri*; *toṭi+kūṟu* > *toṭikkūṟu* 'less than *toṭi*';

kāṇi+kūṟu>kāṇikkūṟu, 'less than *kāṇi*' When the names of measurement is followed by another noun it behaves like case relationship: *kalam+payaṟu>kalappayaṟu* 'gram of one kalam'.

9 1. 171 The addition of *u* and the optional doubling of the following plosive in the imperative ending in *–ṇ* (This is extention of of S.152). *uṇ+koṟṟā>uṇṇukkoṟṟā~uṇṇukoṟṟā* 'eat Koṟṟā';

10. I. 210 No-change when the negative relative participle *ceyyāta* pattern follows a plosive:[1]

11. 1. 223 The addition of an *a* in (i) *irupeyar oṭṭut tokai*: *arā+pāmpu>arāappāmpu*' 'A kind of snake'; (ii) subject predicate construction: *irā+koṭitu>irāakkoṭitu* 'night is unbearable'; N. *uvā+koṭitu>uvāakkoṭitu* 'full moon is unbearable'; and (iii) relative participle: *irā+kākkai>irāakkākkai* 'non-existing crow'

12. 1. 231 The doubling of the following plosive when the locative particles like *aṅkā* 'there'; *iṅkā* 'here' *uṅkā* or *eṅkā* 'where' is followed by plosive; *aṅkā+koṭṭāṉ>aṅkākkoṇṭāṉ*; *iṅkā+koṇṭāṉ>iṅkākkoṇṭāṉ* etc.

13. I. 246 The Loss of final vowel of the preceding word when followed by another vowel: *kaṭṭi+akal>kaṭṭakal*; N. *kaṭṭi+iṭi>kaṭṭiṭi*. The loss of initial syllable *ta–* of

1. *(payan) ilāta col* (Tirukkuṟaḷ 198)

tantai 'father' before *–i* ending names: *kappi+tantai* 'father of kappi'>*kappintai*; *ceṉṉi+tantai*>*ceṉṉintai* 'father of Ceṉṉi':

14. I; 306 — Non-*toḻiṟpeyar* ending in *ṇ* also takes *u*[1]: *veṇ+karai*>*veṇṇukkarai* 'bank of the river Veṇ' *eṇ+pāru*>*eṇṇuppāru* 'the boat having the sesame seed 'N. *paṇṇu* + *peyarttu*> *paṇṇuppeyarttu* (Maturaikkāñci. 560).

15. I. 307 — The final *–ṉ* of locative particle changes into *ṭ*: *aṅkaṇ+koṇṭāṉ*>*aṅkaṭkoṇṭāṉ* 'he got there'; *iṅkaṇ+koṇṭāṉ*>*inkaṭkoṇṭāṉ* 'he got here 'etc: *āṅkaṇ+koṇṭāṉ*> *āṅkaṭkoṇṭāṉ* 'he got there'; *īnkaṇ+koṇṭāṉ* >*īṅkaṭkoṇṭāṉ* 'he got here': *avaṇ+koṇ-ṭāṉ*>*avaṭkoṇṭāṉ*; *ivaṇ+koṇṭāṉ*>*ivaṭkoṇ-ṭāṉ* etc.

16. I. 309 — *muraṇ* 'opposition' undergoes the optional change of *ṇ*>*ṭ* in case relationship: *muraṇ* +*kaṭumai*>*muraṭkaṭumai*~*muraṇkaṭumai* 'opposition is strong[2],– *ṇ* of *araṇ* also undergoes the same change: *araṇ+kaṭumai*> *araṭkatumai*~*araṇkaṭumai* 'the strength of fort'

17. I. 311 — No lengthening of vowel in *–m* ending words before *a* and *ā* : *maram+aṭi*> *maravaṭi*; *kuḷam+āmpal*>*kuḷavāmpal*

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1. There are some instances even in Tolkāppiyam text: *nāṇu neñcelaippa*' (S. 1053. 10); *nāṇu mika variṉum* (1057.).
2. *muraṇ+kaṭanta*>*muraṇkaṭanta* 'passed oppositioṉ' (Puṟanāṉuṟu. 135,01).

18. I. 312 –*m* ending undergoes no-change in case relationship: *kalam perukaṇṇuḷar* 'dancer getting vessel' (Malaipaṭukaṭām 50); *pulam pukkaṉaṉ* 'he went to cave' (Puṟanāṉūṟu 258.6)

19. I. 314 Loss of final –*m* and doubling of the succeeding plosive in *paṇpuppeyar*:
I. *kalam+koḷ>kalakkoḷ* 'horse gram of a *kalam*', N. *kalam + cukku > kalaccukku* 'dried ginger of one *kalam*', I. *nīlam+kaṇ >nīlakkaṇ* 'blue eyes'

20. I. 327 *Toḻiṟpeyar* ending in –*m* becomes homorganic nasal in non-case relationship sandhi and loses its final –*m* and gets the following plosive in case relationship: *nāṭṭam+kaṭitu >nāṭṭaṅkaṭitu* 'Examination (is) difficult' : N. *āṭṭam+kaṭitu > āṭṭaṅkaṭitu* 'Playing (is) difficult'; *nāṭṭam+kaṭumai > nāṭṭakkaṭumai* 'difficulty of the examination'; *āṭṭam+kaṭumai>āṭṭakkaṭumai* 'difficulty of playing'.

21. I. 335 The final –*ṉ* undergoes no-change in case relationship: *kāṉ + kōḻi > kāṉkōḻi* 'wild fowl'; N. *kōṉ+kuṇam>kōṉkuṇam* 'quality of the king', *vāṉ+karai>vāṉkarai* 'the sky's limit'

22. I. 338 *veḷḷāḷaṉ* changes into *vēḷāṉ*: *vēḷāṅkumari* 'daughter of *Veḷḷāḷa* clan'; *vēḷāṉ vāḻkkai* 'life of *veḷḷāḷā*'

23. I. 342 The loss of the final –*ṉ* in *tēṉ* 'honey' and optional doubling of following nasal: *tēṉ+*

ñeri > *tēñeri* ~ *tēññeri* 'piece of honey comb'; *tē<u>n</u>+nu<u>n</u>i*>*tēnu<u>n</u>i*~*tēnnu<u>n</u>i* 'edge of honey comb';

24. I. 344 *tē<u>n</u>* becomes *tētt* even before *aṭai* 'honey-comb' and *ī* 'fly';

25. I. 349 When *aḻa<u>n</u>* or *puḻan* is followed by *tantai* 'father' the final -*<u>n</u>* of the preceding word and the initial *ta*- are lost: *aḻa<u>n</u>+tantai*> *aḻantai* 'father of Aḻa<u>n</u>', *puḻa<u>n</u>+tantai*> *puḻantai* 'father of Puḻa<u>n</u>'

26. I. 353 The final-*<u>n</u>* of *tā<u>n</u>* and *yā<u>n</u>* (after shortening of the vowel according to S. 352) changes into *<u>r</u>* : *tā<u>n</u>* + *pukaḻ* > *ta<u>r</u>pukaḻ*; *tā<u>n</u>+pāṭi*>*ta<u>r</u>pāṭi*; *nā<u>n</u>+pukaḻ*>*e<u>r</u>pukaḻ*; *nā<u>n</u>+pāṭi*>*e<u>r</u>pāṭi*

27. I. 361 The locative articles like *avvāy*, *ivvāy*, *evvāy* etc. get the following plosive doubled: *avvāykkoṇṭā<u>n</u>*, *ivvaykkoṇṭā<u>n</u>* etc.
Optional doubling of the following plosive in -*y* ending words: *vēy*+*kaṭitu*>*vēyk-kaṭitu*~*veykaṭitu* 'bamboo is strong';

28. I. 368 The change of final –l into *<u>r</u>* in the following cases:

(i) Locative particles like *akkāl*, *ikkāl* etc. *akkā<u>r</u>koṇṭā<u>n</u>* 'he got at that time'; *ikkā<u>r</u>koṇṭā<u>n</u>* 'he got this time' etc.

(ii) Verbs : *vantā<u>n</u>āl*+*ko<u>r</u><u>r</u>a<u>n</u>*>*vantā<u>n</u>ā<u>r</u>-ko<u>r</u><u>r</u>a<u>n</u>* 'ko<u>r</u><u>r</u>a<u>n</u> came'; *poruvā<u>n</u>āl*+*pōkā<u>n</u>*>*poruvā<u>n</u>ā<u>r</u>pōkā<u>n</u>* 'He won't go to fight'.

29. I. 376 The verbal noun ending in *-l* undergoes no-change in non-case relationship and changes into *ṟ* in case relationship: *pin̲n̲al* + *kaṭitu* > *pin̲n̲alkaṭitu* 'plait is difficult'; *pin̲n̲al* + *kaṭumai* > *pin̲n̲aṟkaṭumai* 'difficulty of plaiting' etc.

30. I. 398 The final *-ḷ* in genitive case has the optional change of *ḷ* into *ṭ*: *muḷ+kuṟumai* > *muṭkuṟumai*~*muḷkuṟumai* 'shortness of thorn'; *koḷ+kaṭumai* > *koṭkaṭumai* ~ *koḷ-kaṭumai* 'difficulty in having etc.

The locative particles like *atōḷ*, *itōḷ* etc. undergoes the change of *ḷ* into *ṭ*: *atōḷ*+ *koṇṭān̲* > *atōṭkoṇṭān̲* 'he got there'; *itōḷ*+ *koṇṭān̲* > *itōṭkoṇṭān̲* 'he got here' etc.

31. I. 401 The verbal nouns ending *-ḷ* undergoes the optional change of *ḷ* into *ṭ* in case and non-case relationships: *vāḷ+kaṭitu* > *vāṭ-kaṭitu* 'killing is difficult'; *vāḷ+kaṭumai* > *vāṭkaṭumai* 'difficulty of killing'

32. I. 403 *puḷ* 'bird' and *vaḷ* 'abundance' undergo the change of final *ḷ* into *ṭ*: *puḷ+kaṭitu* > *puṭkaṭitu* 'bird is strong'; *puḷ+kaṭumai* > *puṭkaṭumai* 'strength of a bird' etc.

33. I. 425 In words of *irupeyaroṭṭup paṇputtokai* (oppositional construction) ending in shorter *u*, doubling of the penultimate stop of the preceding word and the doubling of the following plosive: *kāṭu+kān̲am* > *kāṭṭuk-kān̲am* 'forest tract'; *kuruṭu+erutu* > *kuru-ṭṭu erutu* 'blind bull'; N. *karaṭu+kāṇam* >

karaṭṭukkāṇam 'unpolished gold'; tiruṭu+ pulaiyaṉ > tiruṭṭuppulaiyaṉ 'stealthy pulaiya' varaṭu + āṭu > varaṭṭāṭu 'barren sheep'

34. I. 428 The words like *muntu* 'before'; *paṇṭu* 'early', *iṉṟu* 'to-day', *aṉṟu* 'that day' undergo no-change.

35. I. 452 *mūṉṟu* becomes *mū* before *v* and vowel
36. I. 456 & I. 457 and *āyiram* 'thousand': *mūṉṟu* + *vaṭṭi* > *mūvaṭṭi* 'three *vaṭṭis*'; *mūṉṟu* + *akal* > *mūvakal* 'three *akals*'

37. I. 454 *aintu* before *vaṭṭi* becomes *aivatti*

38. I. 493 *akam* before *cevi* becomes *añ*: *añcevi* 'inner ear' (Mullaippāṭṭu. 89).

39. N. 144 The loss of final *-y* before words beginning with *y-*: *vēy*+*yātu* > *vēyātu* 'which (is) bamboo'; *vēy*+*yāppu* > *vēyāppu* 'strength of 'bamboo'[1]

40. N. 153 *uyartiṇai* nouns undergo the loss of final consonant and the doubling of the following plosive: *īḻavaṉ*/*īḻavar*+*katti* > *īḻavakkatti* 'knife of *īḻavās*' *vāṇikaṉ*/*vāṇikar* +*teru* > *vāṇikkatteru* 'Merchants, street'

41 N 154 *uyartiṇai* nouns ending in *-ai* can have the doubling of the following plosive in non-case relationship: *naṅkai*+*peṇ* > *naṅkaippeṇ* 'bride girl'; *naṅkai*+*cāṉi* > *naṅkaiccāṉi* 'women of eminence' (?)

42. N. 157 The final consonant of the personal pronouns changes into the same plosive as

1. *cāay*+*yāṉē* > *cāayaṉē* (kuṟuntokai. 125.1).

that of the following plosive (in second case relationship): *nam+puṉara>nappuṉara* 'to join with us'[1]

43. N 171 *cīrakam* 'a small measure of weight'+*arai* >*cīrakarai* '*cīrakam* and a half': *orumā* +*arai*>*orumāvarai* 'one *mā* and a half' *nākam*+*aṇai*>*nākaṇai* 'snake-bed'; The addition of *u* and the optional doubling of the following plosive in the imperative ending in -*ṉ*, -*ḷ* and *l*: *maṉ*+*koṟṟā*>*maṉṉukkoṟṟā*~*maṉṉukoṟṟā* 'live long *koṟṟā*' *uḷ*+*koṟṟā*>*uḷḷukkoṟṟā*~*uḷḷukoṟṟā* 'think *koṟṟā*': *kol*+*koṟṟā*>*kollukkoṟṟā*~*kollu koṟṟā*>'kill *koṟṟā*'

44. N 176 The loss of final short -*u* before another vowel: *katavu*+*aḻakitu*>*katavaḻakitu* 'the 'door (is) beautiful'; *kaḷavu*+*aḻakitu*> *kaḷavaḻakitu* 'premarital love (is) good'

45. N. 199 *orupaḵtu* 'ten' *itupaḵtu* 'twenty' etc., become *orupaḵtaṉ*, *irupaḵtaṉ* etc., before a case sign.

46. N. 338 *veḷḷāḷaṉ* becomes *veḷḷāṉ*: *veḷḷāṉkumari* daughter of vellala, *veḷḷāṉvāḻkkai* 'life of vellalas'

47. N. 350 The loss of final -*ṉ* in proper names before other nouns: *koṟṟaṉ*+*maṅkalam* > *koṟṟamaṅkalam* 'village named after *koṟṟaṉ*' *cāttaṉ*+*maṅkalam*>*cāttamaṅkalam*'village

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1. *nappuṇarntu* 'having joined us' (Kuṟuntokai 237.2); *natturantu* 'having deserted us' (Ibid. 174.4; *nappulantu* 'having disliked us' (Naṟṟiṇai 79.5; *nappuṇara* 'to join us' (Ibid 126.8).

named after *cāttaṉ*': The doubling of the penultimate consonant in some proper names: *vēṭaṉ+maṅkalam>vēṭṭamaṅkalam* 'village of *vēṭas*'

48. 362 Words ending in *-r* can have the nasal increment or the doubling of the following plosive: *vēr+kuṟai>vērṅkuṟai~vērkkuṟai* 'defect of the root'

49. 363 There are some words ending in *-r* which have the nasal increment[1]: *īr + kōtai > īrṅkōtai* 'wet garland'; *kūr+katirvēl>kūrṅkatirvēl* 'sharp bright spear'[2]

50. 368 The change of *l* into *ṟ* when the neuter singular pronouns followed by *āl* occurs before plosive: *attāl + koṇṭāṉ>attāṟkoṇṭāṉ* 'He got by that (way)'; *ittāl + koṇṭāṉ >ittāṟkoṇṭāṉ* 'He got by this (way)'

51. 376 The final *-l* in the words like *āṭal* 'dancing' *pāṭal* 'singing'; *nīṭal* 'lengthening' undergoes no-change in non-case relationship sandhi and optional change of *l>ṟ* in case-relationship sandhi. *āṭal + kaṭitu>āṭalkaṭitu* 'dancing(is)difficult'; *āṭal + kaṭumai >āṭaṟkaṭumai* 'difficulty of dancing' etc.,

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1. *nīr+kai>nīrṅkai* 'wet hand' (Puṟanāṉūṟu 258.5); *īr + puṟam>īrmpuṟam* 'wet back' (Kuṟuntokai. 334); *īr + paṭai>īrmpaṭai* 'navy' (Patiṟṟuppattu 77.10).

2. *kūr + paṭai>kūrmpaṭai* 'sharp weapon' (Puṟanāṉūṟu. 195.4)

52. 405 The final *-ḻ* of *viḻal* 'a kind of sedge' becomes *ṉ* in case relationship sandhi, *viḻal + kāṭu > viḻaṅkāṭu* (*ṉ > ṅ*)
The final *-l* of *aḻukkal* and *puḻukkal* changes into *ṟ*: *aḻukkal + cōṟu > aḻukkaṟcōṟu*; *puḻukkal + cōṟu > puḻukkaṟcōṟu* 'cooked rice'

13.4. Morphology :

1. N. 118 Distinction between augment *iṉ* and case suffix *iṉ*: The augment *iṉ* can be followed by any one of the case suffixes while the case suffix cannot.

2. N. 151 In *muṉṉilai* 'second person verb', there are two distinctions, one referring to the action of the second person (indicative) and the other to the action to be undertaken by him (imperative):

3. 157 Instances of non-occurrence of accusative case suffix *ai* in *uyartiṇai* nouns:
I. *makaṟpeṟṟāṉ* 'he got son'; *oṉṉārt teṟutal* 'punishing the enemies' (Tirukkuṟaḷ. 264),
N. *āṭūuvaṟicol* 'word to indicate masculine' (Tolkāppiyam S. 483), *maḻavar ōṭṭiya*' (one who has) driven maḻavar' (Akanāṉūṟu. 1.2); *avarkkaṇṭu* 'having seen him'

4. N. 178 *karumai* 'blackness', *neṭumai* 'length' etc are called as *paṇpuppeyar* 'quality nouns' and *kariyavar* 'those who are black', *neṭiyavai* 'those which are long' etc are *paṇpukoḷpeyar* 'nouns taking abstract quality'

13.4.2. Augments :

i. Additional augments noted : The following except the last one, are used by Tolkāppiyar though not listed in S. 115.

1.	I.	115	*nam* (S. 191, 320)	with	*ellārum* 'all people'
			num (S. 191, 320)	,,	*ellīrum* 'you all'
			nam (S. 190, 324)	,,	*ellām* 'they (neuter) all'
			um (S. 481)	,,	*–l* or *n̲* ending
			ke<u>l</u>u (S. 481)	,,	,,

ii. *cāriyai* in later day usage :

ñān̲r̲u

a) Addition of augment *in̲* : not stated by Tolkāppiyar

1.	I.	131	Before the case suffix *in̲*:[1] *pāmpin̲ir̲* (*kaṭitu*) 'than snake',
	N.		*kar̲pin̲in̲* (*vāḻāa*) 'from chastity', *aḷavin̲ir̲* (*r̲iriyā*) 'in the measurment' (Malaipaṭukaṭām. 33.)
2.	I.	192	Between *ekin̲* 'swan' and case suffx : *ekin̲in̲ai*, *ekin̲in̲āl* etc.
3.	I.	197	Between the words of *uyirttoṭar* shorter *u* (especially when the preceding consonant is *ṭ* or *r̲*) and case suffix: *muyir̲u* 'Red ant' *muyir̲r̲in̲ai*, *muyir̲r̲in̲āl* ; *yāṭu* 'sheep', *yaṭṭin̲ai*, *yaṭṭin̲āl* etc.
4.	I.	226	Between *iṭā* 'a weight' and case suffix : *iṭāvin̲uḷ*
5.	I.	230	After *irā* 'night', which occurs as the subject: *irāvir̲koṇṭān̲* 'he got in the night'
6.	N.	246	After *tuḷi* 'rain', which occurs as the subject: *tuḷiyir̲ koṇṭān̲* 'he got when it was raining'

7.	N.	286	After *avai* 'assembly', *paṉai* 'palmyra', and *kēṭṭai* 'a star'; which occur as the subject: *avaiyiṟ koṇṭāṉ* 'he got in the assembly', *paṉaiyiṉ māṇpu* 'greatness of Palmyra', *kēṭṭaiyiṟ nāṭṭiṉār* 'he established in *Kēṭṭai*'
8.	N.	306	After *veṇ* 'a river'; *veṇṇiṉ karai* 'bank of river Veṇ'
9.	N.	412	Between *paṟampu* 'a hill', and *mayilāppu* 'a place' and another noun: *parampiṟ pāri* 'Pāri of Paṟampu hill' *mayilāppiṟ koṟṟaṉ* '*Koṟṟan* of Mayilāppu'
10.	N.	483	Between words ending in shorter *–u* and another noun: *teṅku+paḻam>teṅkiṉ-paḻam* 'coconut fruit' *koṅku+paḻam> koṅkiṉpaḻam* 'fruit of konku'

b. augment *attu*:

1.	I.	193	Between *ekiṉ* 'swan' and case suffixes: *ekiṉattai*
2.	I.	195	Between words of shorter *u* ending and case suffixes: *vaḻakku* 'tradition', *vaḻakkattāṉ*
3.	I.	226	Between words ending in *–ā* like *aṇṇā* and *tiṭṭā* before another nouns: *aṇṇāttēri* 'tank of *aṇṇā*'; *tiṭṭāttukkuḷam* 'tank of *tiṭṭā*'.
4.	I.	246	After *tuḷi* 'rain' which occurs as the subject: *tuḷiyattukkoṇṭāṉ* 'he got in the rain'.

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fn. for p. 208

1. *aṟatiṉiṟkoṇṭa* Kalittokai 96.33; *iyalpiṉiṉ vaḻātu* Cilappatikāram. 2.50; This is one of the features distinguishing the language of Tolkāppiyam and the language of Sangam literature.

5. I. 312 After words ending in *-m* when they occur as the subject: *nilam* 'land', *nilattu-kkiṭantā<u>n</u>* 'he lay in the ground'

6. I. 317 *āyiram* 'thousand' before *ku<u>r</u>ai* 'deficiency' *kū<u>r</u>u* 'less' and *mutal*; *āyirattukkurai* 'less than thousand' *āyirattumutal*

7. I. 417 After the words *iruṭṭu* 'dark' and *viḷakku* 'light' when they occur as the subject: *iruṭṭattukkoṇṭā<u>n</u>* 'he got in the night', *viḷakkattukkoṇṭā<u>n</u>* 'he got in the day'.

8. I. 418 Between the words like *koṅku* 'name of a country' **vaṅku* 'ship' and another noun *koṅkattu u<u>l</u>avu* 'Agricultute of *Koṅgu*', *vaṅkattu vaṇikam* 'maritime trade'

9. N. 286 After *avai* 'assembly' which occurs as the subject: *avaiyattukkoṇṭā<u>n</u>* 'he got in the assembly'.

10. N. 312 *kuḷam* 'tank', *kuḷattukkoṇṭā<u>n</u>* 'he got in the tank' *ī<u>l</u>am* 'Ceylon', *ī<u>l</u>attucce<u>n</u><u>r</u>ā<u>n</u>* 'he went to Ceylon' *pilam* 'cave' *pilattuvāy* 'entrance of the cave'

11. N. 405 After words ending in *–l* like *a<u>l</u>al* 'fire' when it occurs in the subject: *a<u>l</u>alattukkoṇ ṭā<u>n</u>* 'he got in the fire'.

12. N. 483 Between the word *vetir* 'bamboo' and other noun: *vētirattukkāl* 'foot of the bamboo' (Na<u>r</u><u>r</u>iṇai 62.1)

c. *attu* and *ñā<u>n</u><u>r</u>u*

1. I. 226 After *uvā* 'full moon' which occurs as the subject: *uvāttuñā<u>n</u><u>r</u>ukoṇṭā<u>n</u>* 'he got in the full moon'

d. augment *am*:

1. N. 482 Between the words *narā* 'a tree', *kurā* 'a tree' and other noun: *naravaṅkaṇṇi* 'garland of narā', *kuravaṅkaṇṇi* 'garland of kurā'[1]

2. N. 405 Between the words *poṉ* 'gold'. *maṇ* 'earth' and *kāṉ* 'forest, and other nouns: *poṉṉantikiri* 'golden weapon' (Puṟanāṉūṟu. 365.2); *poṉṉaṅkuvaṭu* 'golden mountain' *maṇṇankaṭṭi* 'clod', *kāṉaṅkōḻi* 'wild fowl'

3. N. 482 Between the words *nāval* 'a tree', *kāṉal* 'sea shore', and *neytal* 'coast' and other nouns: *nāvalam taṇpoḻil* 'grove of Nāval' (Perumpāṇāṟṟuppaṭai. 465), *kāṉalam peruntuṟai* 'big sea shore' (Ainkuṟunūṟu. 158.3) *neytalam ciṟupaṟai* 'small death drum'[2]

4. N. 483 Between the words *kaḷḷi* 'spurge' and *puḷḷi* 'dot' and another noun: *kaḷḷiyaṅkāṭṭa* 'forest of spurge' (Akanāṉūṟu. 97.1), *puḷḷiyampporkalai* 'deer having the dots' (ibid).

Between *puṉṉai* 'Alexandria land tree' and *mullai* 'jasminum sampac' and another noun: *puṉṉaiyaṅkāṉal* 'Alexandria land tree of sea shore' (Akanāṉūṟu. 80.13), *mullaiyantoṭaiyal* 'garland of jasmine'

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1. *kuravamporippu* 'flower of kurā' (Naṟṟiṇai. 341.1).
2. *neytalaṅkaṇṇi* 'garland of neytal' (Aiṅkuṟunūṟu. 135.3)

e. augment *aṉ*:

1.	I.	194	Between words ending in *ḻ* other than *ēḻ* 'seven' and case suffix: *yāḻ* 'flute'; *yāḻaṉai*, *yāḻaṉāl* etc. *pūḻ* 'a bird', *pūḻaṉai*, *pūḻaṉāl*
2.	I.	195	Neuter singular nouns (i) before case suffix: *kariyatu* 'that which is black', *kariyataṉai*, *kariyataṉāl* etc.
	I.	417	(ii) before other noun: *kariyataṉ kōṭu* 'horn of the black (thing)'; *neṭiyataṉ kōṭu* 'horn of the long (object)'[1]

f. augment *akku*:

1.	I.	338	Between *eyiṉ* 'a clan' and other noun: *eyiṉakkaṉṉi* 'maid of *eyiṉ* clan', *eyiṉavāḻvu* 'life of *eyiṉ*'; *pārppāṉ* 'brahmin' has the shortening of the final vowel additionally[2]: *pārppaṉakkaṉṉi* 'brahmin maid' *pārppaṉappiḷḷai* 'brahmin boy'.
2.	I.	417	Between the words *aracu* 'kingdom' and *muracu* 'drum' and other noun: *aracavāḻvu* 'king's life', *muracakkaṭippu* 'drum stick'[3]

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1. *ikaḻntataṉ palaṉ* 'result of reproaching' Puṟanāṉūṟu. 202.13.

2. *pārppaṉap pākkam* Tolkāppiyam 1021; *pārppaṉa makaṉ* 'son of a brahmin' (Kuṟuntokai 156.1); *pārppaṉa makkaḷ* 'brahmin people' (Puṟanāṉūṟu 9 1); *pārppāṉ* is found in Mullaippāṭṭu 37, Tirukkuṟaḷ 134.

3. *muracam* 'drum' is also found in literature e.g., Puṟanāṉūṟu 3.3, 36.2 and so it can be *muracam* + *kaṭippu* without any *cāriyai*.

3.	I.	418	Between *pārppu* 'young one of tortoise, frog etc.' and other noun: *pārppaṉakkuḻavi, pārppaṉaccēri, pārppaṉattōṭṭam*
g. *vaṟṟu.*			
1.	I.	178	Nouns ending in *-ai* other than demonstrative and interrogative neuter plural pronouns (i) before case suffix[1]: *kariyavai - kariyavaṟṟai, kariyavaṟṟōṭu; neṭiyavai – neṭiyavaṟṟai, neṭiyavaṟṟōṭu* etc. and
2.	I.	286	(ii) before other nouns: *kariyavaṟṟukkōṭu* and *neṭiyavaṟṟukkōṭu*
h. *iṟṟu.*			
1.	I.	436	Between *pattu* and other nouns: *patiṟṟuvēli* 'ten *vēlis*' *patiṟṟu yāṇṭu* 'ten years' etc.[2]
2.	I.	459	*oṉpatu* 'nine' befere other nouns: *oṉpatiṟṟukkal* 'nine *kals*'; *oṉpatiṟṟukkalam* 'nine *kalams*'[3]
i. *ai*			
1.	N.	201	Between direction names like *kiḻakku* 'east' and *mēṟku* 'west' etc. and other nouns: *kīḻaiccēri* 'eastern village'; *kīḻaikkuḷam* 'eastern tank'; *mēlaiccēri* 'western village', *mēlaikkuḷam* 'western tank' etc.
2.	I.	425	*aṉṟu* 'that day' *aṉṟaikkūttaṉ*; *paṇṭu* 'earlier' *paṇṭaiccāṉṟōr* 'earlier scholars'; *yāṇṭu* 'year' *ōr yāṭṭai yāṉai* 'one year old elephant'; *maṉṟu* 'assembly' *maṟṟaiyāṉai* 'elephant of the assembly'

1. *payilātavai* : *payilātavaṟṟai* Tolkāppiyam S. 782.6.
2. *muppatiṟṟu eḻuttu* 'thirty sounds' Tolkāppiyam 103.
3. *oṉpatiṟṟu eḻuttu* 'nine sounds' Ibid. 170.

3. I. *nāḷ* 'day', *tiṅkaḷ* 'month' – before other nouns: *orunāḷaikkuḻavi* 'one day old child' *orutiṅkaḷaikkuḻavi* 'one month old child'.

N. *a<u>n</u><u>r</u>u*: *a<u>r</u><u>r</u>aikkūttar*[1] 'Dancer of that day' *i<u>n</u><u>r</u>u*: *i<u>r</u><u>r</u>aikkūttar*[2] 'Dancer of this day'

J. *ikku*

1. 239 *tūṇi* when occurring before *tūṇi* 'a measure': *tūṇikkuttūṇi* 'to each *tūṇi*'

K. *nam*

1. I. 191 Between first person nouns ending in *-m* and case suffixes: *kariyēm* 'we, the dark ones' *kāriyēm nammai*

N. *iruvēm* 'we two' *iruvēm nammai*

l. *num*

1. I. 191 Before second person nouns ending in *-r* and case suffixes: *cā<u>n</u><u>r</u>īr* 'you, scholars' *cā<u>n</u><u>r</u>īr nummai*

N. *kariyīr* 'you, the dark ones', *kariyīrnummai*

m. *tam*

1. I. 191 Between third person nouns ending in *-r*.[3] *kariyār* 'The dark ones' *kariyārtammai*; *cā<u>n</u><u>r</u>ār*: *cā<u>n</u><u>r</u>ārtammai*

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1. *a<u>r</u><u>r</u>aiñā<u>n</u><u>r</u>u* 'on that day' (Pu<u>r</u>anā<u>n</u>ū<u>r</u>u. 376.17); *a<u>r</u><u>r</u>aittiṅkaḷ* 'on that full moon day' (Ibid. 112.1).
2. *i<u>r</u><u>r</u>aittiṅkaḷ* 'on the full moon day' (Ibid 112.3) *i<u>r</u><u>r</u>ai nāḷ* 'in this day' (Ibid. 161.12)
3. *kātalar* 'lovers' – *kātalartamakkē* (Ku<u>r</u>untokai. 48.7). Similarly *ta<u>n</u>* is added between *uyartiṇai* singular nouns and the case suffixes. *kātala<u>n</u>* 'lover' – *kātala<u>n</u>ta<u>n</u><u>n</u>ai*. Cilappatikāram. 21.41; *kātala<u>n</u>ta<u>n</u>akku*. Ibid.15.139; *mātavita<u>n</u><u>n</u>ai* Ibid.3.7; *mātavita<u>n</u><u>n</u>oṭu* –Ibid. 15.40

1. N. *maṇ* 'earth', *poṉ* 'gold', *poruḷ* 'thing', *nel* 'paddy', *koḷ* 'horse gram' take *u* (before dative *ku*): *maṇṇukku*, *poṉṉukku*, *poruḷukku* *nellukku* and *koḷḷukku* [1]

The following are the instances of introduction of new augments instead of the one stipulated by Tolkāppiyar.

Augment stipulated by Tolkāppiyar

1.	I.	171	*ē*	*akku*	*patakku* 'a measure' *patakkanāṉāḻi* 'one' *patakku* and four *nāḻis*'; *patakka muṉṉāḻi* 'one *patakku* and three *nāḻis*'
2.	I.	173	*iṉ*	*attu*	*nilā* 'moon' *nilāttai* *maka: makattai*
3.	I.	230	*am*	*attu*	*yā* 'a tree' *yāttukkōṭu* 'branch of *Yā*'; *piṭā* 'a tree' *piṭāattukkōṭu*; *taḷā* 'a tree' *taḷāattukkōṭu*
4.	N.	230	,,	*iṉ*	*Yā – yāviṉkōṭu* *piṭā – piṭāviṉkōṭu* *taḷā-taḷāviṉkōṭu*
5.	N.	246	,,	,,	*puḷi* 'tamarind' *puḷiyiṉkōṭu* 'branch of tamarind'
6.	N.	260	,,	,,	*ceru* 'battle' *ceruviṉkaṭumai* 'fierceness of battle'; *eru* 'manure' *eruviṉkuṟumai* 'meagreness of manure'

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1. *kaṇṇukku* 'to the eyes' Puṟanāṉūṟu. 167 12; *nāṇukku* 'to the shame' Tirukkuṟaḷ 1015; *makkaḷukku* 'to the people' Puṟanāṉūṟu. 328.4; *kaḷḷukku* 'to the toddy' Tirukkuṟaḷ 1281; *aracaṉukku* 'to the king' – Maṇimēkalai. 23.24; *makaṉukku* 'to the son' ibid. 25.194; *kālukku* 'to the leg' Cilappatikāram. 6.85.

7.	I.	285	*am*	*iṉ*	*paṉai* 'palmyra' *paṉaiyiṉ kuṟa.* 'piece of palmyra wood' *arai* 'a tree' *araiyiṉkōṭu*; *āvirai* 'a tree' *āviraiyiṉ kōṭu*
8.	I.	232	,,	*m*	*māṅkōṭu* 'branch of mango'
9.	I.	246	,,	,,	*puḷi* 'tamarind' *puḷiṅkāy*, *puḷimpaḻam*
10.	I.	260	,,	,,	*eru* 'manure' *eruṅkuḻi* 'manure pit'
11.	N.	180	*ōṉ*	*iṉ*	*kō* 'king' and *cō* 'fort' *ō* 'sluice' before case suffix: *kōviṉoṭu*; *cōviṉai*, *cōviṉoṭu*; *ōviṉai*,*ōviṉoṭu*;
12.	N.	242	*m*	*am*	*uti* 'a tree': *utiyaṅkōṭu* 'branch of *uti*'
13.	N.	262	,,	,,	*oṭu* 'a tree': *oṭuvaṅkōṭu*
14.	N.	362	,,	,,	*ār* 'a tree': *āraṅkaṇṇi* 'chaplet of *ār* (Akanāṉūṟū 93.4)
15.	N.	365	,,	,,	*pīr* 'a tree': *pīramoṭu* (Neṭunalvāṭai 14)
16.	N.	246	,,	*iṉ*	*uti* 'a tree': *utiyiṉkōṭu*
17.	N.	262	,,	,,	*oṭu* 'a tree': *oṭuviṉkōṭu*
18.	I.	362	,,	,,	*cē* 'a tree': *cēviṉkōṭu*
19.	I.	(282) 365	,,	,,	*vicai* 'a tree': *vicaiyiṉkōṭu* *ñemai* 'a tree': *ñemaiyiṉkōṭu* *namai* 'a tree': *namaiyiṉkōṭu*
20.	N.	365	,,	*attu*	*pīr* 'a tree': *pīrattu alar* 'flower of *pīr*' (Kuṟuntokai 98.5)
21.	I.	483	,,	,,	*vetir* 'bamboo': *vetiratticai* (Naṟṟiṇai 62.1) 'sound produced by bamboo'

22.	I.	232	*ṉ*	*iṉ*	*ā* 'cow': *āviṉkōṭu* 'horns of a cow'; *mā* 'mango': *māviṉkōṭu* 'branch of mango'
23.	I.	176	*aṉ*	,,	Neuter singular pronouns: *atu* 'it' *atiṉai, atiṉōṭu*
24.	I.	198	*iṉ*	,,	Numerals: *oṉṟu* 'one' *oṉṟiṉai*; *iraṇṭu* 'two' *iraṇṭiṉai*
25.	I.	270	*akku*	,,	*ū* 'flesh' *ūviṉkuṟai*
26.	I.	218	*attu/iṉ*	*m*	*maka*: *makampālyāṭu*

In the following instances, no augment is used even though they are stipulated by Tolkāppiyar.

1.	I.	169	*iṉ*	*ϕ*	*paṉai* 'palmyra' *paṉaikkuṟai*: *kā* 'grave' *kākkuṟai*
2.	I.	218	,,	,,	*maka*; *makappālyāṭu*
3.	I.	260	,,	,,	*ceru* 'battle' *cerukkaḷam* 'battle field; *eru* 'manure' *erukkuḻi* 'manure pit'
4.	I.	164	*ē*	,,	*kuṟuṇi* 'a measure': *kuṟuṇi nāṉāḻi* 'one *kuṟuṇi* and four *nāḻis*'
5.	I.	320	*tam*	,,	*ellār – ellārkaiyum* 'hands of all'
6.	I.		*num*	,,	*ellīr* 'all of you': *ellīrkaiyum*
7.	I.	323	*nam*	,,	*ellām* 'all of them (human) *ellākkollarum* 'all the blacksmiths' *ellāccāṉṟārum* 'all the wise persons'; *ellā nāykarum* 'all the nayaks' *ellāmaṇiyakkārarum* 'all village accountants'

8. N.	384	*akku*	ϕ	*tā<u>l</u>* 'bolt' *tā<u>l</u>kkōl*
9. N.	385	,,	,,	*tami<u>l</u>* 'Tamil': *tami<u>l</u>kkūttu* 'dance of Tamilnad'; *tami<u>l</u>nāṭu* 'Tamil country' (Cilappatikāram. 25. 165)
10. N.	328	*u*	,,	*īm* 'burial ground': *īmaṭaivu*
11. N.	279	,,	,,	*cē* 'cow': *cēmaṇi* 'cow's bell'
12. N.	130	*am*	,,	*puḷi* 'tamarind': *puḷiyilai* 'leaves of tamarind'
13. N.	285	,,	,,	*pa<u>n</u>ai* 'palmyra': *pa<u>n</u>aittiraḷ* 'group of palmyra trees' (Akanā<u>n</u>ū<u>r</u>u. 148.1)
14. N.	164	*ē*	,,	*ainnā<u>l</u>i* 'five nā<u>l</u>is': *ainnā<u>l</u>iuḻakku* 'five *nā<u>l</u>is* and one *uḻakku*'
15. N.	192	*tam*	,,	*ellār* 'all (persons)' *ellārkkum* (*ellām nika<u>l</u>pavai*) (Tirukku<u>r</u>aḷ. 582)[1]

Vocabulary :

i. Names of trees and plants not mentioned by Tolkāppiyar

1.	I.	246	*kaṇaviri* 'Red Oleander' *kaṇaviraṅkōṭu*
			kūtāḷi 'convolous', *kūtāḷaṅkōṭu*
2.	I.	285	*tūtuṇai* 'climbing brinjal' *tūtuṇaṅkāy*
			va<u>l</u>utuṇai 'Brinjal' (Nālaṭiyār. 264) *va<u>l</u>utuṇaṅkāy*
			tillai 'blirding tree' (Pu<u>r</u>anā<u>n</u>ū<u>r</u>u. 252.) *tillaṅkāy*;
			ōlai: *ōlampō<u>l</u>*
3.	I.	373	*kūtir*: *kūtirṅkōṭu*
			tuvar 'pigeon pea dhal' *tuvarṅkōṭu*

1. There is one instance in Pu<u>r</u>anā<u>n</u>ū<u>r</u>u. 58.10. *ellārkkum* (*eḷiya.*)

4.	I.	385	*makiḻ* 'Mimusaps elangi' *makiḻaṅkōṭu* (Paripāṭal. 22.7)
5.	I.	415	*kuruntu* 'wild lime': *kuruntaṅkōṭu* *vēmpu* 'neem': *vēppaṅkōṭu*
6.	N.	246	*veṇkūtāḷi/veṇkūtāḷam*: *veṇkūtaḷattu taṇpū* 'white catamaran tree, (paṭṭiṉappālai. 85) *kaṇaviri* 'Red Oleander': *kaṇaviramalai* (Akanāṉūṟu. 31.9)
7.	N.	286	*amai* 'bamboo' (Puṟanāṉūṟu. 129.2) *amaiṅkōṭu* *uṭai* 'babul tree' (Ibid. 324.4) *uṭaiṅkōṭu*
8.	N.	363	*tuvar* 'pigeon–pea dhal' *tuvaraṅkōṭu* *viḷā* 'wood–apple' *viḷāṅkōṭu* *cilir*: *cilirṅkōṭu*
9.	N.	405	*puṭōl* 'snake gourd': *puṭōlaṅkāy*[1]
10.	N.	415	*kamuku* 'Areca palm': *kumukaṅkāy* *cīḻku* 'broom grass': *cīḻkampul* *kampu* 'Bulrush trilcet': *kampampul*
11.	N.	416	*kaṭampu* 'common cadamba': *kaṭappaṅkāy* *iccu* 'date palm' : *iccaṅkāy*

ii. Names of measurements:

1.	I.	170	*oraṭai* and *ōraṭai*
	N.		*immi*, *iṭā*, *ñār* and *tuvali*

iii. Loss of vocabulary:

1.	I.	245	*puḷikkūḻ* 'porridge cooked in tamarind juice', *puḷittayir* 'sour curds' *puḷippāḷitam* are not in use.

1. In modern Tamil, it is *puṭalaṅkāy*

2.	N.	210	*palla* 'many' and *cilla* 'few' are out of use. Verbs of *ceyyumaṉa* type used in Tolkāppiyar's time, have become obsolete.
3.	N.	351	The personal names *tāṉ* and *pēṉ* have disppeared.
4.	N.	379	The forms *a°°kaṭiya*, *i°°kaṭiya* and *u°°kaṭiya* are rare in his time.

13.6 Semantics:

Tolkāppiyar gives the meaning of certain words. For instance, *illam* 'a tree' (S. 313), *cē* 'bullock' (S. 279) etc. So, the commentators point out the other meaning of the homophonous forms. In the case of non-homophonous form also the commentators provide meaning in some cases.

i. The meaning of homophonous forms :

				Meaning given by Tolkāppiyar	Additional meaning given by commentator
1.	I.	244	*puḷi*	sour taste	tamarind
2.	N.	241	*paṉi*	a season	a disease
3.	N.	242	*vaḷi*	wind	fart
4.	N.	243	*uti*	a tree	rising
5.	N.	304	*āṇ*	a tree	masculine
6.	N.	308	*eṇ*	seasame seed	limit
7.	N.	336	*ekiṉ*	a tree	a bird

ii. Meaning of other words:

1.	I.	336	*kuyiṉ* 'cloud'
2.	I.	355	*aḻaṉ* 'corpse'

3.	I.	401	*vāḷ* 'killing'
4.	N.	175	*ucu* 'name of an *uḷu*' *mucu* 'variety of monkey'
5.	N.	101	*kāṭci* 'chest'
6.	N.	114	*cē* 'fort'
7.	N.	154	*eṭṭi* and *kāviti* 'titles conferred on persons in a particular area'
8.	N.	159	*atōḷi* 'that place'
9.	N.	189	*ō* 'weir'
10.	N.	216	*iruviḷa* 'leaf' /village in Vēṇātu
11.	N.	224	*uṇkā* 'will I eat'
12.	N.	236	*aṇi* 'near by place' *iṉi* 'now'
13.	N.	245	*pāḷitam* 'cooked milk rice'
14.	N.	269	*ū* 'flesh'
15.	N.	272	*ēe* 'order to do a favour'
16.	N.	288	*vēṭkai* 'attachment which inspires the desire'
17.	N.	299	*porun* 'fit' (verb)/ 'the caste of actors'
18.	N.	316	*ilampaṭu* 'poverty stricken'
19.	N.	328	*īm* 'burial ground' *kam* 'handicraft'
20.	N.	359	*makaṉṟāy kalām* 'the quarrel that a son has taken up with his mother'
21.	N.	364	*cārkkāḻ* 'seed of the *Cār*'
22.	N.	384	*tāḻkkōl* 'key'

13.7. Graphemics :

Naccinārkkiniyar refers to the writing system of his time, and it is useful in tracing the historical development of Tamil alphabet.

i. The phrase *āytam enra muppār pulli* occurring in S. 2 generally is interpreted in two different ways: (i) *āytam* itself is consisting of three dots and (ii) *muppārpulli* is referring to three *pulli*, sound or dotted letters viz. shorter *i* and shorter *u* and *āytam* There is no occurrence of *āytam* in any inscriptions earlier than that of Varakuna of the eighth century. In his inscription, *āytam* occurs as $\underset{\cdot}{\dot{\smile}}$ like a crescent with one dot above and one below. Here we do not see three dots. By the time of Naccinārkkiniyar, people have come to recognise *āytam* as a letter of three dots like three stones of the Tamilian hearth or like the projection in a shield. People have suggested, because of its appearance of the shield, the letter itself came to be called *āytam* 'weapon'. In cursive writing, the three dots were connected together more or less like the modern கூ. This curving introduced in between three dots, is probably referred to by Naccinārkkiniyar as *natuvu vāṅkiy ittu elututal*[1].

ii. The consonants per se appeared with *pulli* in the age of Tolkāppiyar. The short vowels *e* and *o* were also dotted so as to differentiate them from their long vowels. This is pointed by Ilampūranar[2], Naccinārkkiniyar[3] and Pavananti[4].

1. Nac. eluttu. P. 20.
2. Ilam. eluttu. P. 10 (S. 16)
3. Nac. elattu. P. 28.
4. Nannūl. S. 97

iii. The shorter *u* was probably dotted as pointed by Mayilainātar[1] and Pēraciriyar[2] though Naccinārkkiniyar does not seem to have seen any such writing. This has led him to misunderstand the sutras prescibing the dots to the consonants and the shorter *u* also.

iv. Naccinārkkiniyar says that *i*, *ī* and *ai* do not have resemblance in form[3] and so the script form of the longer *i* written ஈ as found in some inscriptions was unknown to him

v. Iḷampūraṉar and Naccinārkkiniyar interpret the sutra 14 as giving the form *m* as contrasted with *p*, *m* having internal *puḷḷi* in addition. As already noted, the commentator of *Vīracōḻiyam* asserts that the internal dot or *puḷḷi* differentiates the shorter *m* (*makarakkuṟukkam*) from the ordinary *m* which has external dot like other consonants.

vi. Naccinārkkiniyar also refers to the syllabic letters where the consonant when occurring as a syllabic letter in combination with long vowel *ā* was marked *puḷḷi* placed on the right side of the consonant without *puḷḷi* at its top.[4] The *puḷḷi* therefore not a dot but a kind of peg like vertical mark. It was this *puḷḷi* which came to be *kāl* (the mark ா) of later times as pointed out by Naccinārkkiniyar. He also refers to *kōṭu* which is now called *kompu* (ெ), *kīḻ vilaṅku* 'lower rounding' (‿ as in கு) and *mēl vilaṅku* 'upper rounding (ʃ as in கி) as they do occur even now. *i* and *ī* series get *mēl vilaṅku*, *u* and *ū* series *kīḻ vilaṅku* *e* and *ē* series *kōṭu* and *o* and *ō* series *puḷḷi* and *kōṭu*.

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1. Mayilalnātar urai P. 34 (S. 97)
2. Pēraciriyar. Tolkāppiya poruḷatikāra urai. P. 229.
3. Nac. eḻuttu. P. 18.
4. Ibid. 29 (S. 17)

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Errata

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2	16	hundered	hundred
	17	hundered	hundred
18	4	Chap. 4 phonological word	chap. 5 moḻimarapu
34	3	*ār*	*ar*
	15	persona	personal
43	4	additions	addition
56	3	respest	respect
67	22	commentaors	commentators
70	6	*ar*	*ār*
71	foot-note – 4	*aḷepuṭai*	*aḷapeṭai*
76	2	*ī̤*	*ī*
78	foot-note - 27	occurence belonging	occurrence belong
105	23	*iyalyu*	*iyalpu*
117	22	amonst	amongst
123	23	*itaiccol*	*iṭaiccol*
124	5	Eleswhere	Elsewhere
142	foot-note – 6	add ...	*urōkiṇi* (Neṭunalvāṭai 163), *makam* (paṭṭiṇappālai.35) *ōṇam* (Maturaikkāñci 591)
	foot-note – 8	ncrement Linguistcs	increment Linguistics
149	9	*veṇavā*	*vēṇavā*
	11	Tolkāppipar	Tolkāppiyar
152	22	*maraaaṭi*	*marāaṭi*

Page	*Line*	*Error*	*Correction*
153	13	homorgenic	homorganic
155	5	*ān, īn*	*āṉ, īṉ*
	24	*teṅkuṭam*	*tēṅkuṭam*
156	8	*ū*	*u*
	9	*ā*	*a*
159	last line	*toṯiṟ peyar*	*toḻiṟ peyar*
169	1	*āru*	*āṟu*
170	22	aceording	according
189	6	i	—
	7	—	i

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